1920
LIBRARY
2.0
DIA

REPORT

OF THE

MATERNITY AND CHILD WELFARE EXHIBITION

DELHI 1920

CSL-AS -5428
AS004258
362.1982 REP

58
Report of the maternity and child welfare exhibition
AS0004258

CSL

GOVT. OF INDIA
SECRETARIAT
LIBRARY.
20
INDIA

REPORT

OF THE

ATERNITY AND CHILD WELFARE EXHIBITION

DELHI 1920

17211

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
संस्कृति मंत्रालय · भारत सरकार

CSL-AS -5428
AS004258
362.1982 REP

CSL

11

-5428
362.1982 095428
MAT-R

362.15
R39

Additional copies of this Report may be obtained on
(accompanied by annas 4 to cover postage) to :—

The Honorary Secretary,
The Lady Chelmsford All-India Leag
for Maternity and Child Wel
Viceregal
Delhi

AS-004258

14271

111

GOVT. OF IN
SECRETARIAT
LIBRARY.
9646

TABLE OF CONTENTS.

PAGE
Foreword vii
Introduction 1
Report of Committees 3
Opening Ceremony 9
Attendance 10
Assistance 11
Conference of Health Workers 13
Baby Show 13
Delhi Health Association 14
Prizes 15
Lectures and Meetings 17
Financial Statement 19
Pre-maternity Section 20
Maternity Section 21
nfant Welfare Section 23
ildhood Section 25
des Exhibit 28
th-West Tannery Exhibits 29
dras Exhibit 30
mestic Hygiene and Sanitation Section 33
me Nursing Section 35
st Aid Section 36
g-in room as described in the Mahabharata . . . 37
r Exhibit Section 39
ty for Promoting Scientific Knowledge Exhibit . . 44
en's Christian Temperance Union Exhibit . . . 45
tions Exhibit 48
ical Section 49
Awards Exhibit 50
uiry Office .

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

PAGE
Leaflets and Pamphlets 51
Ante-natal Hygiene 51
Maternity Talks to Mothers 53
Advice to Dais 59
Advice to Parents 61
Advice to those about to commence training Dais . . 62
Advice to Municipal Committees 63
Work of Midwife Supervisors 65
How Training, Registration, and Supervision of Dais may be carried on 68
Artificial Feeding and care of the Bottle 70
Baby's Bath and Bed 73
Weighing of Babies 75
Babies Weight chart 76
Welfare Work in Mills and Factories 77
Food. Diet for Child 1—2 years old 79
Diet of child 2—6 years old 80
Rules for a child over 6 years of age 81
What makes a child lose weight 83
What makes a child gain weight 84
Home Nursing 84
Alcohol 9

Lectures delivered at the Exhibition—

The Responsibility of men in matters relating to Maternit
Feeding and Rearing of Infants.
Feeble-mindedness in India.
The Psychology of Child Life.
Lectures to Health workers and others interested in Ven
Disease.
Kindergarten Training.
Lecture on Flies.
Indian Childhood and Education. Dibacha ya Bhum

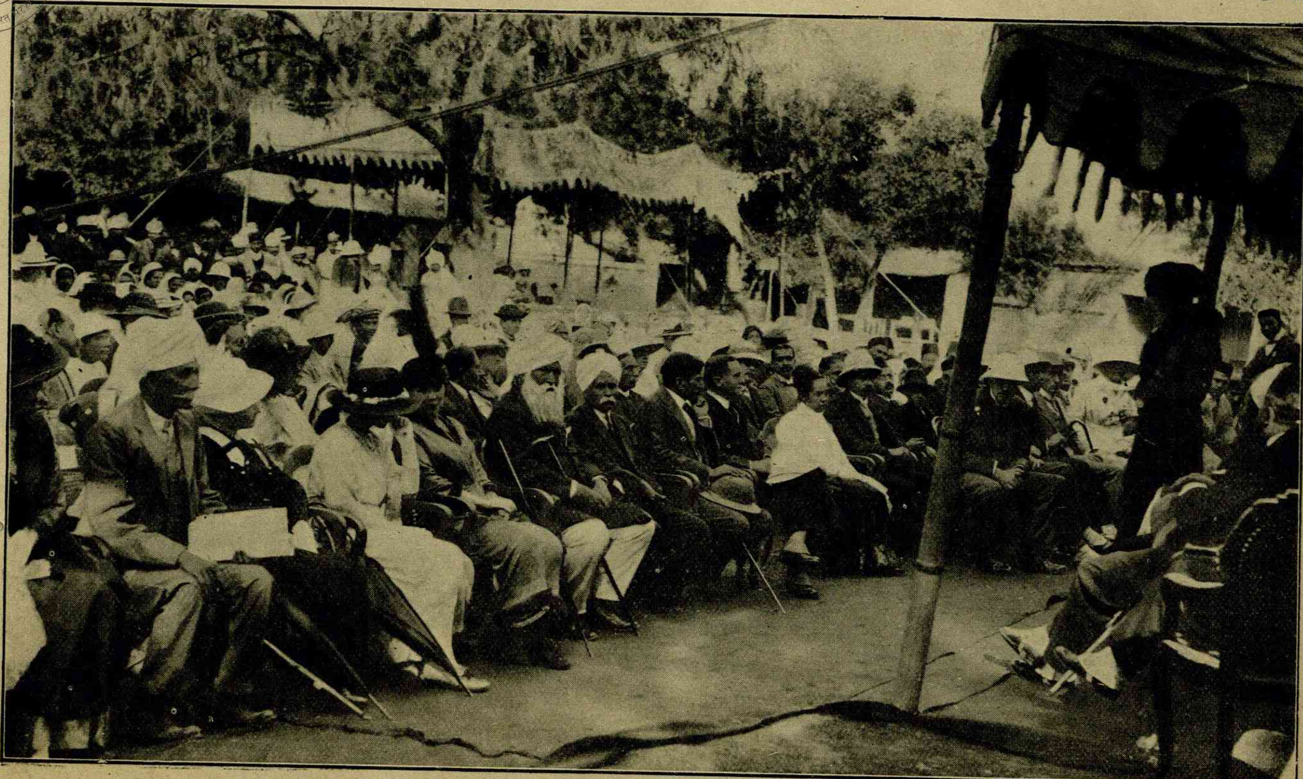
MINISTRY OF CULTURE · GOVERNMENT OF INDIA
AS004258
CSL

LIST OF PHOTOGRAPHS.

		PAGE
1.	Opening Ceremony	*Frontispiece*
2.	Opening Ceremony	9
3.	Exhibition Grounds	13
4.	Maternity Section—Chamar house with untrained Dai	20
5.	Maternity Section—Chamar house with trained Dai	21
6.	Maternity Section—Well-to-do Mahomedan house with untrained Dai	22
7.	Maternity Section—Well-to-do Mahomedan house with trained Dai	23
8.	Infant Welfare Section	24
9.	Infant Welfare Section	24
10.	Childhood Section and Crêche	26
11.	Trades Exhibit	28
12.	North-West Tannery Exhibit	29
13.	Madras Social Service Exhibit	30
14.	Madras Maternity Hospital Exhibit	32
15.	Domestic Hygiene and Sanitation Section	32
16.	Domestic Hygiene and Sanitation Section	34
17.	Domestic Hygiene and Sanitation Section—Models illustrating transmission of disease	34
18.	Home Nursing Section—Room of neglected patient	35
19.	Home Nursing Section—What cleanliness can do for a patient	35
20.	First Aid Section	36
21.	Uttara's Lying-in room	37
22.	Poster Exhibit	39

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
संस्कृति मंत्रालय · भारत सरकार
सत्यमेव जयते

CSL



OPENING CEREMONY.

FOREWORD.

The Maternity and Child Welfare Exhibition, which was held in Delhi in February 1920, was probably the first of its kind in India. It was accordingly thought that some record of the character of the Exhibits and of the lectures, etc., which took place in the Exhibition would be of value to workers in this field in different parts of India. The description contained in the following pages will also be of practical interest to those who are organising or may in future organise similar Exhibitions.

It is hoped that the Exhibition will prove to have given an impetus to child welfare in various ways. Already Exhibitions have been held in certain other centres and a particularly encouraging feature of the enterprise at Delhi was the large sale and distribution of literature.

The success which attended the Exhibition was due to the great encouragement extended to its promoters by Her Excellency Lady Chelmsford and to the self-sacrificing zeal [illegible] promoters and the other workers on the various committees and in the different departments, to all of whom my grateful thanks are due.

H. SHARP.

June 1920.

REPORT

OF

The Maternity and Child Welfare Exhibition, Delhi, 1920.

INTRODUCTION.

The need for some organized effort for the improvement of the conditions of childbirth, and for the reduction of the high infant mortality in India, has for some time been realised by those who have the welfare of the Nation at heart. But the problem to be solved is one of great difficulty.

To bring the babies of India under healthy conditions their mothers should live in healthy surroundings during pregnancy ; symptoms of disease should be early noticed and treated, careful preparations should be made for labour which should be attended by trained midwives, and the babies should be brought up with proper attention to fresh air, cleanliness, suitable food and medical advice.

How this differs from the existing conditions is well known to all who come much into contact with Indian homes.

To secure improvement reform is needed and it must come from within.

But at present only a few Indians are interested and convinced of the need for this reform, and it was with the object of turning the few into the many and of forming a great body of Indian public opinion to support Maternity and Child Welfare that the Delhi Exhibition was organized.

It should be emphasized at the very outset of this Report that the object of the Exhibition was purely educational. It was not intended to be a financial speculation.

It was intended to show practically, in as many different ways as possible, what are the present conditions of childbirth and infancy in India, and how these can be improved.

The Exhibition, which had been started by a few persons interested in the subject, became after nearly a year's effort a large organization.

The work was done by a number of men and women, Indian and European, who worked together in the greatest harmony, and whose services were all given in an honorary capacity.

It had been intended to employ a trained organizer from England, but owing to passage difficulties she arrived only a few days before the opening of the Exhibition.

Among the visitors to the Exhibition were many men and women who came with the intention of organizing similar work in their own Provinces. Many applications have already reached the Committee for the loan of the Exhibits for this purpose, and it has been decided to form a permanent Exhibition Collection which can be conveniently moved from place to place, and for the loan of which facilities will be given to local Committees.

CSL

The Committee hopes that in this way the work begun at the Delhi Exhibition will have far-reaching results, leading not only to local improvement in the neighbourhood of Delhi, but to a general improvement in the conditions of childbirth and infancy throughout India.

THE GENERAL COMMITTEE.

The Hon'ble Mr. H. Sharp, C.S.I., C.I.E., Chairman.
H. A. Smith, Esq., I.C.S.
The Hon'ble Mrs. Spence, O.B.E.
Lieutenant-Colonel James, C.I.E., I.M.S.
Dr. Sethna, D.P.H.
Dr. C. L. Houlton, W.M.S.
Mrs. Chatterji.
Miss Griffin.
Mrs. C. B. Young, M.B.
Miss Darbyshire, R.R.C.
Major Salkield, R.E.
Raghubir Singh, Esq.
Rev. S. S. Thomas.
Hakim Ajmal Khan.
Mrs. Barron.
Mrs. Sultan Singh.
Mrs. Austen Smith.
Mrs. Ansari.
Miss Jerwood.
W. G. Hanrahan, Esq., M.B.E.
Lieutenant-Colonel Hutchinson, I.M.S.
Hakim Nazir-ud-din Khan.
K. C. Roy, Esq.
Lieutenant-Colonel Austen Smith, C.I.E., I.M.S.
Lieutenant-Colonel Needham, C.I.E., D.S.O., I.M.S.

Dr. M. I. Balfour, W.M.S.	Joint Honorary Secretaries.
Dr. D. F. Curjel, W.M.S.	

The proposal to organize an Exhibition in Maternity and Child Welfare came from the Association of Medical Women in India, which appointed a Sub-Committee of its Members to take action in the matter. In March 1919 this Sub-Committee invited a number of ladies and gentlemen, residents in Delhi, to meet and discuss the question, and a General Committee was formed.

Most of the Members of the General Committee took an active share in the organization, although owing to the annual exodus from Delhi during the hot weather it was not possible to have another Meeting until November.

Thereafter the Committee met once a month or oftener, to receive the Report of the Sub-Committees, and to decide various important questions arising therefrom.

THE EXECUTIVE COMMITTEE.

The Hon'ble Mr. H. Sharp, C.S.I., C.I.E., Chairman.
Lieutenant-Colonel Hutchinson, I.M.S.
H. A. Smith, Esq., I.C.S.
Major Salkield, R.E.
Dr. C. L. Houlton, W.M.S.
Mrs. Barron.
Miss Darbyshire, R.R.C.
The Hon'ble Mrs. Spence, O.B.E.
J. C. Woolacott, Esq.
Miss Mackenzie.
Mrs. C. B. Young, M.B.
Dr. Sethna, D.P.H.
Mrs. Chatterji.

CSL

Raghubir Singh, Esq.
W. G. Hanrahan, Esq., M.B.E.
Dr. Bazeley.
Miss Griffin.
Dr. M. I. Balfour, W.M.S. } Joint Honorary Secretaries.
Dr. D. F. Curjel, W.M.S. }

The first meeting of the Executive Committee was held shortly after the first meeting of the General Committee. The lines on which the Exhibition was to be held were laid down, and organizers were chosen for each of the seven sections into which the Exhibits were divided.

The locality (the Purdah Garden) was chosen, and a grant of Rs. 5,000 was obtained from the Government of India to meet the preliminary expenses.

Another meeting of the Executive Committee was held six weeks later, when the organizers, presented the schemes prepared for the various sections, which were revised and supplemented after discussion with the Committee.

Later, it was found more convenient to depute most of the more technical duties of the Executive Committee to the Advisory Sub-Committee.

ADVISORY SUB-COMMITTEE.

Lieutenant-Colonel Hutchinson, I.M.S., Chairman.
Lieutenant-Colonel Needham, C.I.E., D.S.O., I.M.S.
Dr. C. L. Houlton, W.M.S.
Dr. Sethna, D. P. H.
Hakim Ajmal Khan.
Dr. M. I. Balfour, W.M.S. } Joint Honorary Secretaries.
Dr. D. F. Curjel, W. M. S. }

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

This Committee held its first meeting early in December. Its main object was to prevent undue lapping and to secure co-ordination of the different sections. It at once called upon the organizers for the detailed schemes of their sections which were now far advanced, and suggested a number of schemes for additional Exhibits, which were carried out.

The administration work was carried on by a small committee consisting of the Chairman and the heads of the Sub-Committees.

All questions relating to the Exhibits, including the judging for the Medals and Awards were disposed of by this Sub-Committee.

GROUND ARRANGEMENTS SUB-COMMITTEE.

H. A. Smith, Esq., I.C.S., Chairman.
Dr. Sethna, D.P.H.
Malik Teja Singh, Esq.
Lala Basheshar Nath Goela.
Raghubir Singh, Esq.
Dr. M. I. Balfour, W.M.S.
Dr. D. F. Curjel, W.M.S.
Major Salkield, R.E., Honorary Secretary.

This Committee met first in November and arrangements were made to secure the Purdah Garden, and as this alone was not sufficiently large, to enclose some waste ground adjacent.

The Committee was fortunate in securing as its Honorary Secretary, Major Salkield, R.E., who in conjunction with Mr. Teja Singh Malik—whose services were lent by the Public Works Department—carried out all the ground arrangements. A series of booths were built for the housing of the exhibits, which added much to the

GSL

comfort of both organizers and visitors by providing shade during the heat of the day. Arrangements for lighting, water supply and sanitation were also made by this Committee.

RECEPTION SUB-COMMITTEE.

Mrs. Barron, Chairman.
The Hon'ble Mrs. Spence, O.B.E.
Mrs. Adie.
Dr. C. L. Houlton, W.M.S.
K. C. Roy, Esq.
Mrs. C. B. Young, M.B.
Mrs. Chatterji.
Miss Darbyshire, R.R.C., Honorary Secretary.

The duty of this Sub-Committee was to find accommodation for the visitors who—if the Exhibition was to fulfil the expectations with which it had been organised—would attend from a distance.

Accommodation in Delhi during the sittings of the Legislative Council is extremely difficult to obtain. A Visitors' Camp was therefore organized to accommodate a hundred persons, and the chief burden of its organization fell upon its Chairman, Mrs. Barron, who carried this huge undertaking to a successful conclusion.

The difficulty lay, not so much in providing a camp, as in providing accommodation which would come within the means of the teachers, health visitors and others who formed the larger number of the visitors, and yet would meet the requirements of others who could afford, but who could not obtain, accommodation in hotels.

Dr. C. L. Houlton, W.M.S., undertook to find accommodation at the Lady Hardinge College for twenty

GSL

medical women, and Mrs. Chatterji arranged to secure accommodation for all Indian visitors, in private houses, schools, hospitals, etc. Eventually, however, the number of Indian visitors proved so large that a portion of the European Visitors' Camp was handed over to Mrs. Chatterji, and arrangements were made to suit Indian requirements.

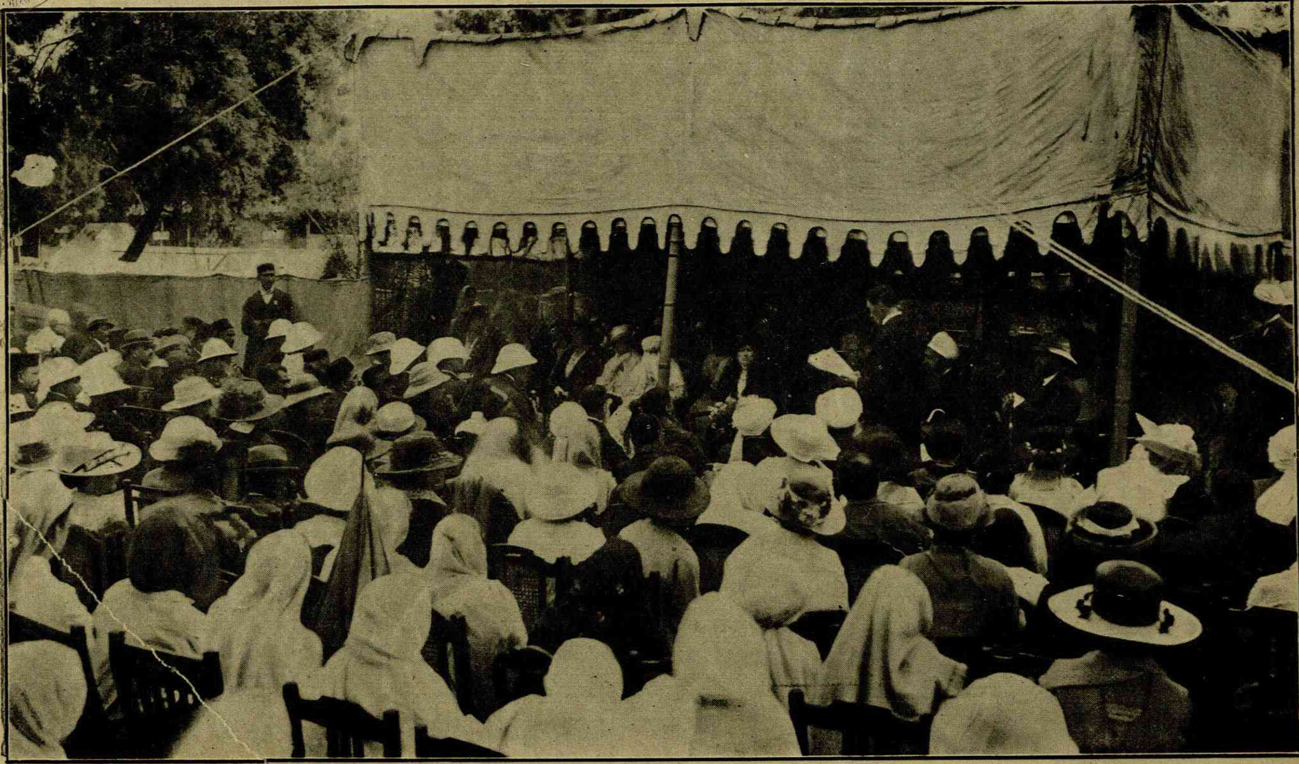
Refreshments and Amusements Sub-Committee.

The Hon'ble Mrs. Spence, O.B.E., Chairman.
A. E. Adie, Esq.
W. G. Hanrahan, Esq., M.B.E.
A. Lane Roberts, Esq., I.C.S.
Nawab Mirza Mahomad Junus Beg.
Lala Basheshar Nath Goela.
Rai Sahib Madho Pershad.
Maulvi Fazl-ud-din.
S. N. Bose, Esq.
Miss Darbyshire, R.R.C., Honorary Secretary.

The functions of this Committee are sufficiently indicated by its name. Refreshments for Europeans and Indians respectively were provided in annexes on each side of the Exhibition ground. The arrangements for European refreshments were made by the Hon'ble Mrs. Spence, and for Indian refreshments by Lala Basheshar Nath Goela. These gentlemen in conjunction with Rai Sahib Madho Pershad were also responsible for the excellent organization of the amusements, which included the provision of jugglers, dandi wallahs, story tellers and a large Bran Pie which was a constant source of attraction and amusement to the children.

A great feature of the entertainments was the wonderful troupe of performing parrots, lent by His

618



OPENING CEREMONY.

Highness the Maharaja of Baroda, which shot arrows, rode bicycles, drove motor cars, etc.

This Sub-Committee also took charge of the Gate arrangements which were carried out most efficiently by Mr. S. N. Bose who attended personally every day to supervise the arrangements.

PUBLICATIONS SUB-COMMITTEE.

J. E. Woolacott, Esq., Chairman.
K. C. Roy, Esq.
Dr. Balfour, W.M.S.
Dr. Curjel, W.M.S., Honorary Secretary.

This Sub-Committee was not formed until late in January. It then made arrangements for the publication of the programme, the hand book, the souvenir and for a general publicity campaign. In addition, meetings were organized in Delhi by Mrs. Chatterji and Dr. Ruth Young to explain the objects of the Exhibition. Three meetings were held for women, one meeting for men, two for students at the different colleges, and one for high school boys and teachers. These were all well attended.

LADIES COMMITTEE.

A Committee of Indian ladies, some of whom were in purdah, was formed in March 1919. Two lady members of the General Committee, Mrs. Chatterji and Dr. Young, attended their meetings and represented their views from time to time in the General Committee.

OPENING CEREMONY.

The Exhibition was opened on 21st February, 1920, by Her Excellency Lady Chelmsford.

An admission fee of Rs. 3 was charge.

A number of representative people were present, including Her Highness the Begum of Bhopal, His Highness the Maharaja of Nabha and His Highness the Maharaja of Alwar, many members of the Legislative Council and others.

After an address by the Chairman of the General Committee, Her Excellency, in a short speech, declared the Exhibition open and then proceeded to inspect the Exhibits.

Tea was served at 4-30 P.M. and was followed by a public discussion, opened by Lieutenant-Colonel Hutchinson, on the future of Maternity and Child Welfare in India.

A little play arranged by the Hon'ble Mrs. Spence and acted by English children was given at 5 P.M., which proved so popular that it had to be repeated on two other occasions.

ATTENDANCE.

During the following week Her Excellency Lady Chelmsford twice visited the Exhibition, which was also honoured by a visit from His Excellency the Viceroy on February 25th.

The Exhibition remained open from the 22nd to the 28th of February. Men were charged a nominal fee of 4 annas per head, while women and children were admitted free. In order that purdah women might have the opportunity of viewing the Exhibits freely, no men were admitted between 11 A.M. and 3 P.M.

The attendance exceeded the highest expectations of the organizers. It was estimated that considerably over 50,000 persons visited the Exhibition. The garden was thronged throughout the week by a well behaved and orderly crowd, the individuals of which displayed the keenest interest in all shown them. Husbands might be seen repeating to their wives the explanations given on sanitary defects, on the dangers of sepsis and the advantages of trained midwives. The women themselves were not backward in asking for information, and handled with interest the Maternity packets and Dais outfits offered for sale.

Pamphlets in the vernacular were eagerly sought after, and it was a significant fact that although many thousands of pamphlets were distributed none were found on the ground torn up or thrown away. Many visitors returned asking for pamphlets to send to friends at a distance.

The fear of some of the organizers that the amusements would prove more popular than the exhibits was quite unfounded. The amusements only served the useful purpose of somewhat relieving the congestion at the stalls, which otherwise would have been excessive.

The beautiful lawns, fine old trees and picturesque booths of the Purdah Garden made an excellent background for the constantly changing crowds of gaily dressed women, the whole forming a blaze of colour not soon to be forgotton by those witnessing it.

One of the most encouraging features of the Exhibition was the large number of visitors who came from a distance. These included Health Officers, Doctors, Nurses, Midwives, Health Visitors, Teachers and Missionaries ; many of whom came with the avowed intention of organizing similar work in their own districts. Some brought parties of Indian women from their stations, for whose accommodation arrangements were made by Mrs. Chatterji, and who doubtless returned to their

GSL

homes to spread among their fellow townsmen some of the knowledge gained in a few strenuous days.

At Her Excellency's request a number of Indian Princes sent representatives to study the Exhibits, and carry home information which might be of use in forming organisations for Infant Welfare Work in their own States.

ASSISTANCE.

Many offers of help were received from residents in Delhi, especially from doctors, teachers and students. Every offer was accepted and the organizers would have been glad when the time came of more help. The women students of the Health School were indefatigable in the help they gave. The girls in the upper classes of schools were also employed, and women teachers took charge of the gate during purdah hours.

During the hours when the Exhibition was open to the general public, organized bands of teachers and students from the colleges and schools in Delhi acted as stewards, and the boy scouts gave much assistance.

The assistants were distributed among the different stalls and were instructed in the subjects which had to be explained. But the lack of ready-made knowledge of child welfare on the part of even the educated classes in India was one of the handicaps of this, the first Infant Welfare Exhibition in India.

While the list of helpers did not exceed four hundred, many of whom could only attend at specified hours, the number of visitors considerably exceeded 50,000, and it is no exaggeration to say that scarcely one came who was not thirsting for information which the comparatively small number of helpers made it difficult to give to all.

with a weighing machine and several assistants. Outside the enclosure several medical women were stationed to issue tickets to those mothers whose babies showed no serious defect; while the crowd outside the enclosure was so great as to cause serious inconvenience, there was no crowd inside and the judging was carried on quietly and methodically.

Babies were judged in three classes:—first, below six months; second, from six months to one year; third, from one year to eighteen months; and fifteen prizes were given in each class besides a number of consolation prizes.

The prizes were given away late in the afternoon by Her Excellency The Hon'ble Lady Monro.

While there could be no doubt as to the popularity and attractiveness of an Indian Baby Show, the opinions of the spectators differed somewhat as to its practical educational value. Crowds of disappointed mothers went away believing firmly that only favouritism dictated the awards. Other mothers, realising that care had been taken in judging, went away discouraged, saying that fine babies could only be reared by rich people who could afford good houses and food. It was at all events very evident that a Baby Show to be of real value must be one of a long series of educational efforts, possibly given in connection with a Baby Clinic, where the knowledge gained by the mothers could be taken into account as well as the babies' condition.

DELHI HEALTH ASSOCIATION.

The day after the closing of the Exhibition, a Garden Party was given by several of the principal residents

CSL

in Delhi to the organizers of the Exhibition, and a number of other ladies and gentlemen, Indian and European.

It was decided that a Delhi Health Association should be formed to continue and render permanent the lessons taught at the Exhibition, and to endeavour to secure the practical adoption of these lessons in the homes of Delhi.

No other conclusion could have been felt by the organizers as so appropriate, and no better reply is needed to the critics who—looking at the trouble and expense involved in organizing this Maternity and Child Welfare Exhibition—ask " is it worth while ?"

PRIZES.

A number of prizes were offered for competition, and the following awards were made :—

(1) A Gold Medal for the best section in the Exhibition.

Awarded to the Maternity Section.

(2) A Gold Medal for the best model of dwelling houses, showing sanitary as compared with insanitary conditions.

Awarded to the Madras Exhibit.

(3) A Gold Medal for the best Exhibit shown by a Commercial Firm in the interest of Maternity and Child Welfare.

Awarded to Mr. E. Keventer.

(4) A Gold Medal offered by the Victoria Memorial Scholarship Fund for the best Model Lecture to Dais.

Awarded (2 Medals) to Dr. S. Bonnerjee and Miss Griffin and Miss Graham.

GSL

(5) A Gold Medal offered by the Association for the Provision of Health and Maternity Supervisors for the best set of "Talks to Mothers."

Awarded to Dr. S. Bonnerjee. An additional Silver Medal was awarded to Dr. Maud Allen.

(6) A Silver Medal for the best Essay on Fly Destruction.

Awarded to Mrs. Wiser.

(7) A Silver Medal for the best set of Infant Clothing.

Awarded to Miss Griffin and Miss Graham.

(8) A Silver Medal for the best device for the Destruction of Flies.

Awarded to Dr. Edal Behram.

(9) The Lady Chelmsford Prizes were awarded in connection with the Baby Show.

Value Rs. 1,000.

(10) The Lady Willingdon Prize (value Rs. 100) for the best paper on "How I should organize a Maternity and Child Welfare Exhibition in my own District."

Awarded to Mr. J. L. Desai.

(11) The Hon'ble Mian Mohammad Shafi's Prize for the best Essay submitted by an Indian student on "How Maternity and Child Welfare Exhibitions may improve the Race in India."

Awarded to Mrs. Bidyat Prova Bose.

Other Prizes and Medals were offered by the Hon'ble Mr. Sharp, P. Gopi Raman Vaid Ratan, Kaviraj Kiran Chandra Kanthabharana, Mr. H. R. Bhargava, Dr. Edith Brown, the Association of University Women in India and the Association of Medical Women in India, but awards were not made by the Advisory Committee.

CSL

LECTURES AND MEETINGS.

The following programme of lectures was carried out at 11-30 A.M. daily :—

(*a*) Lectures in the vernacular to women.

- "The duties of Indian women in connection with Maternity and Child Welfare" by Her Highness the Nawab Begum of Bhopal, G.C.S.I., G.C.I.E., C.I., G.B.E.
- "Infant Feeding and Rearing" by Dr. Ruth Young.
- "Labour in an Indian House" by Miss Bose.
- "Care of an Indian Home" by Dr. Jessie George, W.M.S.
- "Indian Childbirth and Education" by Dr. Yamini Sen, W.M.S.
- "How Indian Women can help the Community" by Dr. Edith Brown.

(*b*) Lectures in English at 5 and 6-30 P.M.

- "Matters relating to Maternity" (for men only) by Dr. A. Lankester.
- "Kindergarten Training" by Miss Gordon.
- "Venereal Disease" (for Teachers and Students) by Lieutenant-Colonel Frost, R.A.M.C.
- "Venereal Disease" (for Medical Profession) by Lieutenant-Colonel Frost, R.A.M.C.
- "The Psychology of Childhood" by Miss M. N. Holmer, M.A.
- "Mentally-deficient Children" by Miss De Laplace.
- "Midwifery Mechanics" by Lieutenant-Colonel Buchanan, I.M.S.

Lantern Lectures with Cinema Films on—

- "Diseases" and "Plague" by Lieutenant-Colonel Glen-Liston, C.I.E., I.M.S.

SECTIONS.

The Exhibition was divided into the following sections :—

Pre-maternity, Maternity, Infant Welfare, Childhood, Domestic Hygiene and Sanitation, Home Nursing, First Aid.

In addition there were the following important sections :—

The Madras Section, the Trades Exhibit, the North-West Tannery Exhibit, Lying-in room as described in the Mahabharata, Poster Exhibit Section, Society for Promoting Scientific Knowledge Exhibit, Women's Christian Temperance Union Exhibit, Publications Exhibit, Pathological Exhibit, together with a Medals and Awards Exhibit, and a Secretary's and Enquiry Office.

Section reports by organisers or helpers, are attached.

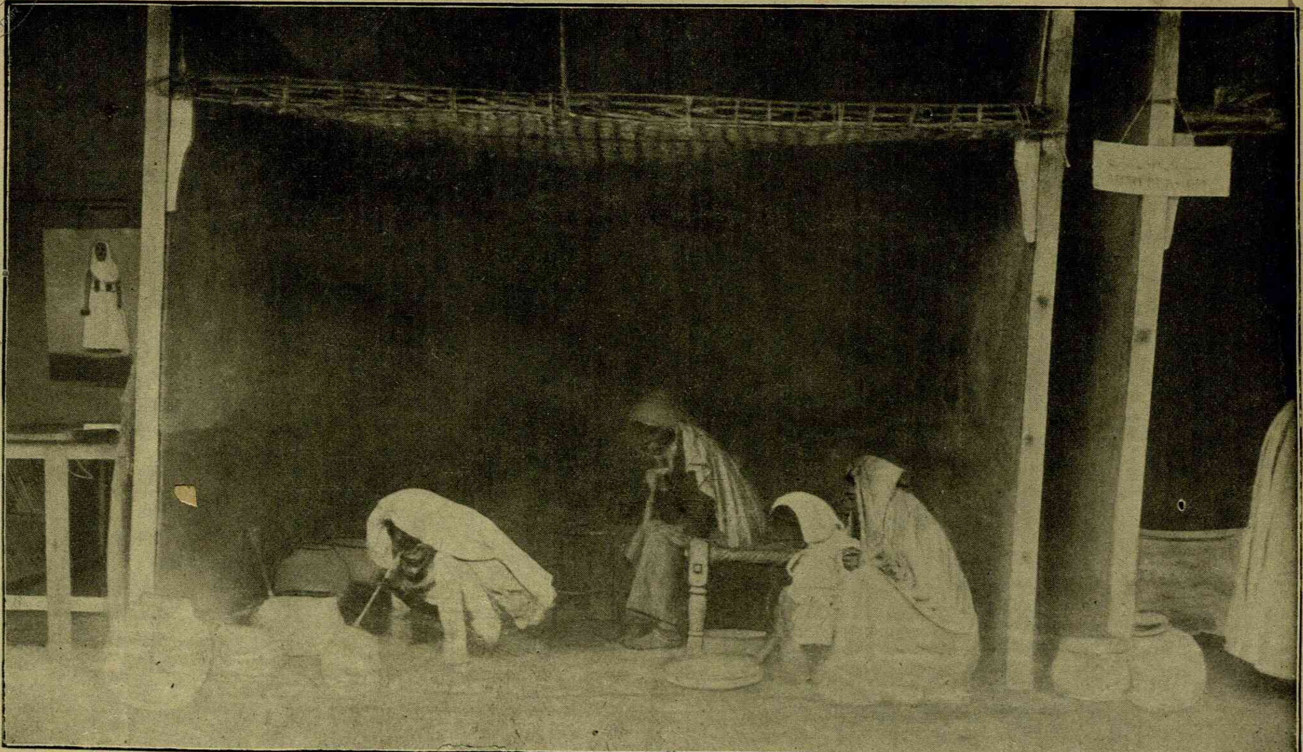
PRE-MATERNITY SECTION.

Organiser: DR. LAZARUS, W.M.S.

This was the first section to which the visitors were guided and here was emphasised the fact that to produce healthy children both parents must be healthy. "Next to malaria, bad housing is the cause of the greatest number of deaths and ill-health in India." To make this clear there were eight models of insanitary houses of poor and rich taken from actual life, depicting conditions as they are and their effects on parents, expectant mothers, infants and children living in them.

There were also pictures of children suffering from rickets due to improper feeding, and of women with osteomalacia due to deficient light, air and food, and dirty surroundings.

CSL



MATERNITY SECTION.

Chamar house with untrained Dai.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
संस्कृति मंत्रालय · भारत सरकार
CSL

MATERNITY SECTION.
Chamar house with trained Dai.

CSL

A diagram showed the method of spread of germs from the dai's hands to the woman's internal organs, and the disastrous results were explained: the spread of gonorrhoea and syphilis in these organs was briefly described, emphasising their results—one-child sterility, miscarriages and still-births.

The effects of bad housing, overcrowding, deficient light and air and improper feeding, were graphically shown by a Plant Physiology Exhibit where we had seedlings grown under favourable and adverse conditions, *e.g.*, seedlings grown in light, in the dark, in sandy soil, in good soil, fed with water lacking nitrites, water containing nitrites, grown sparsely, grown in a crowd.

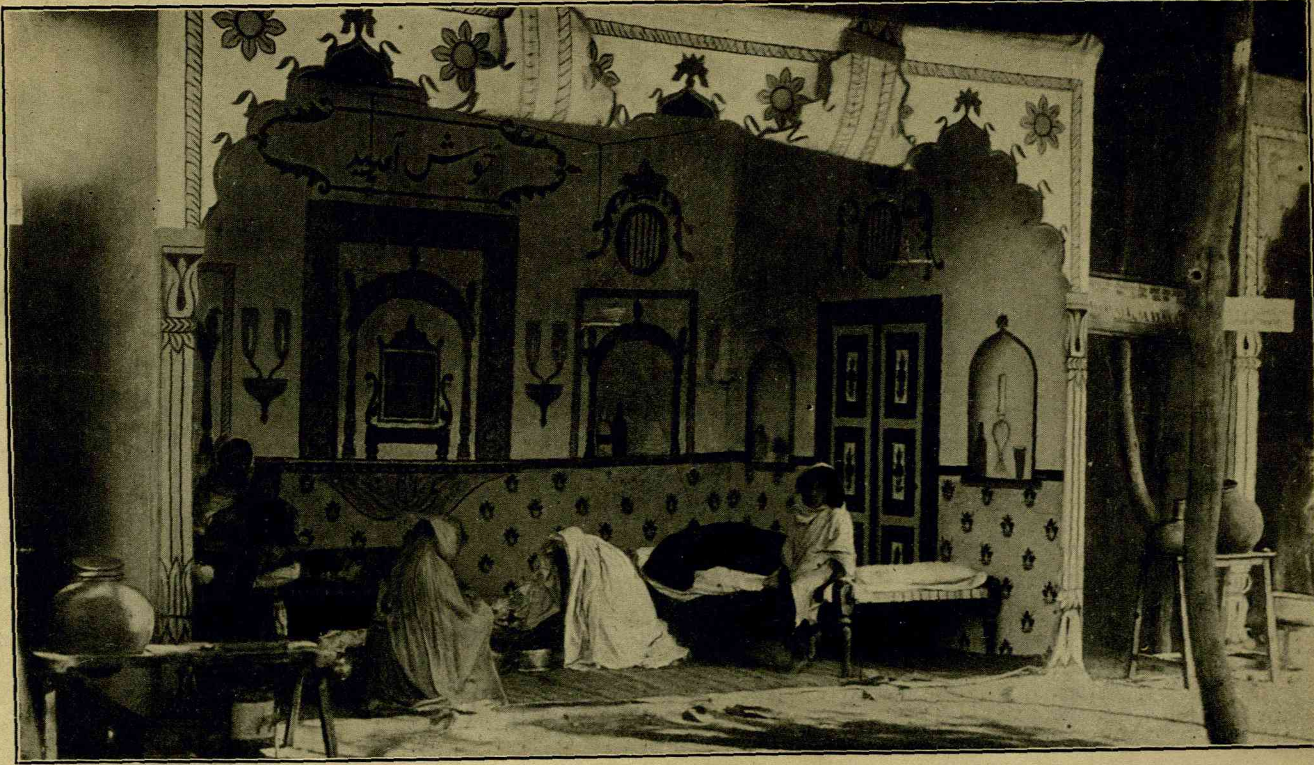
As the visitors passed on, they were handed leaflets on "Bad housing, its results and remedies," "Ante-natal Hygiene," and on "Some of the hidden diseases of pregnancy."

Owing to the vastness of the subject and the very varied classes among the visitors, only the chief points of Pre-maternity were taken up and brought home to the visitors in as simple a way as possible. Cleanliness, fresh air and sunlight conductive to a healthy body and mind, were emphasised as essential during the ante-natal period for the production of healthy children, and these were within the means of both rich and poor.

MATERNITY SECTION.

Organisers: Dr. Balfour, W.M.S., Dr. Curjel, W.M.S., Miss Graham, Miss Griffin, and Dr. Houlton, W.M.S.

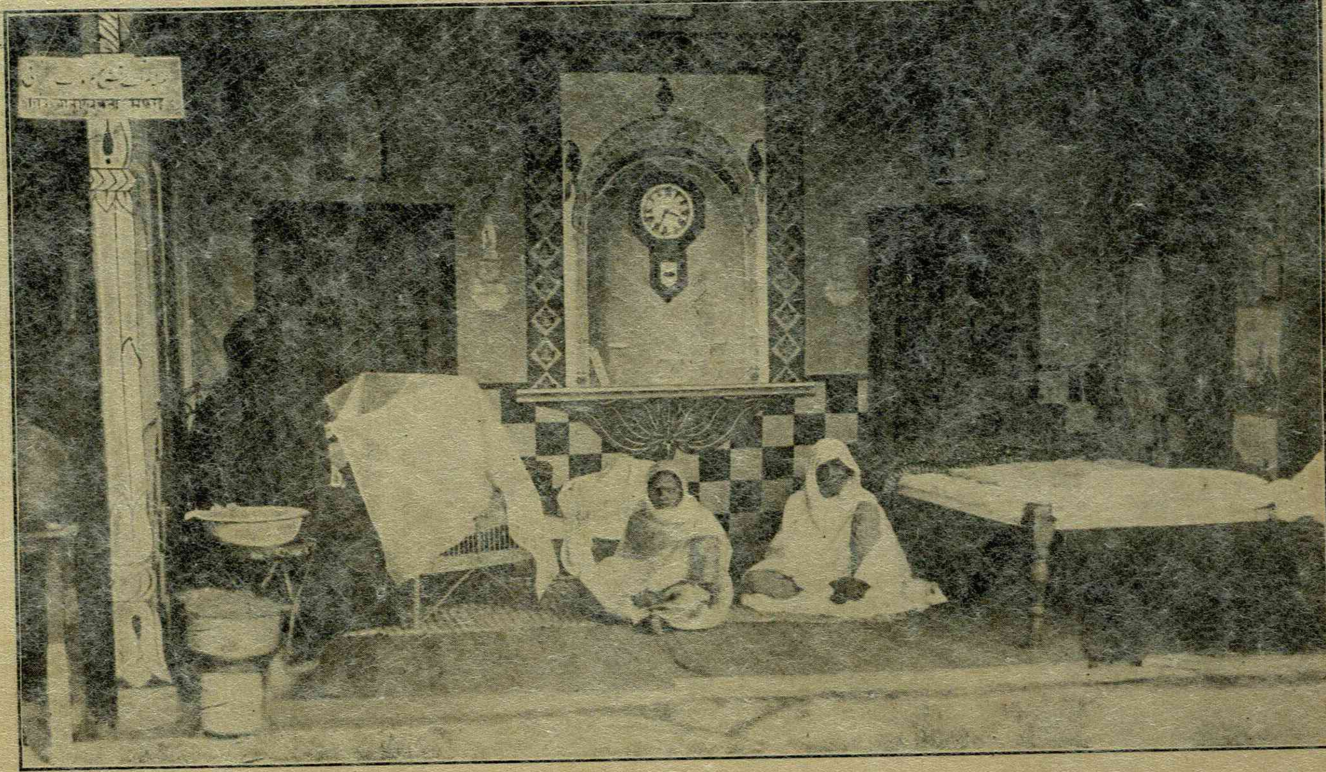
The first part of this section emphasised the importance of cleanliness in labour and the dangers of uncleanliness,



MATERNITY SECTION.
Well-to-do Mahomedan house with untrained Dai.

CSL

23



MATERNITY SECTION.

Well-to-do Mahomedan house with trained Dai.

CSL

vital statistics, the fitted boxes carried by the midwives and the report books, etc., used by them.

Labour in special Homes and Hospitals was illustrated by a plan of a Lady Willingdon Maternity Home, Bombay, and photographs from the Dufferin Hospital, Calcutta, and the Lady Dufferin Hospital and Louise Laurence Institute for training nurses, Karachi, together with details regarding the Karachi Health Association.

The special advantages of Hospital treatment were demonstrated by a complete Labour Ward and Lying-in room which was well carried out by the staff of the Lady Hardinge Hospital, Delhi, and attracted much notice.

An exhibit shewing the training of Dais and Midwives organized by the Victoria Memorial Scholarships Fund contained posters and pamphlets illustrating the objects of the Fund, books and models suitable for use in dais' classes including "First lessons in Midwifery for country dais" by Dr. M. I. Balfour (price annas 8), accouchement outfits containing all a mother needs for her confinement, and dais outfits containing what a dai needs to take to a confinement.

The Association for the Provision of Health and Maternity Supervisors, Delhi, illustrated the training of their students by means of photographs and pamphlets.

INFANT WELFARE SECTION.

Organisers: Mrs. CHATTERJEE and Dr. RUTH YOUNG.

The Infant Welfare Section was designed to show the requirements of babies under one year of age. These were shown in groups, and in addition two model rooms were shown.

As sleep occupies the greater part of the babies time babies' beds were the first item shown. These were of local manufacture and consisted of cots made of basket work and one of canvas slung on a wooden frame. The beds were shown completed, fitted up with mattress, sheet, pillow and mosquito net. Next in order came baths. The ordinary zinc tub was shown and in addition a large "nánd" or vessel made of unglazed clay which is considerably cheaper than a zinc tub, and might be used by the poorer people. Demonstrations on bathing babies were given. The way in which babies can amuse themselves and not get into dangerous places was illustrated by means of a "playing pen." This was also of local basket manufacture and excited a good deal of interest. Suitable clothes for babies were shown for cold and hot weather.

A pamphlet entitled "Babies' Bed and Bath" was distributed. Babies food was the next subject. A pamphlet on Breast Feeding and the care of the Breasts was given to visitors, and another one on Bottle Feeding. Different types of bottles were shown and the methods of keeping them clean: also the methods of keeping milk cool. Different methods of sterilizing milk were demonstrated, and the different forms of substitute for cow's milk were shown and their uses explained. Finally the preparation of the first solid food for babies was shown and talks given on weaning.

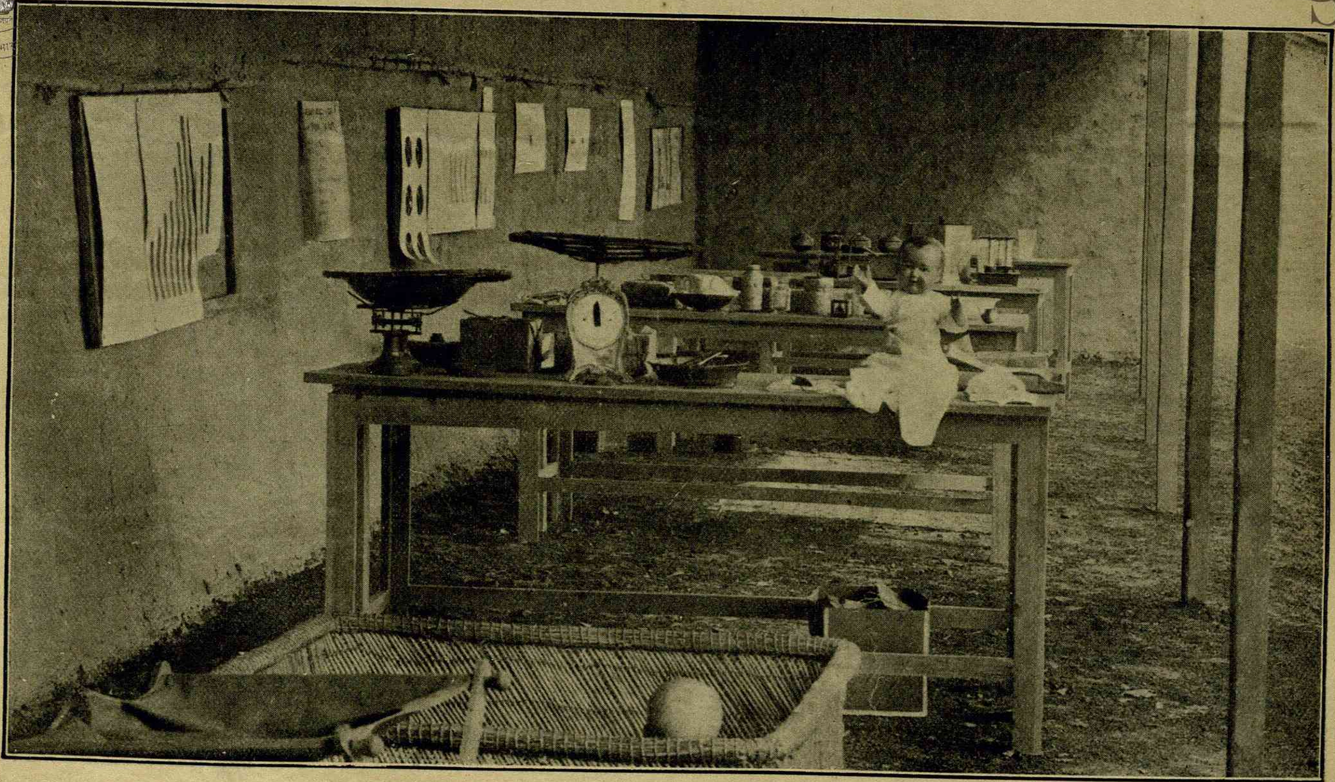
The two model rooms were designed to show the contrast between a nursing mother and her child in clean hygienic surroundings and the reverse.

The unhygienic room was an example of what is common in the bastis—Kachcha floor, dirty walls, rough chula with no means of ventilation and old clothes, scraps, etc., lying about. The realities of this room was further enhanced by the fact that for part of the day a chamar

MINISTRY OF CULTURE · GOVERNMENT OF INDIA

GSL

24



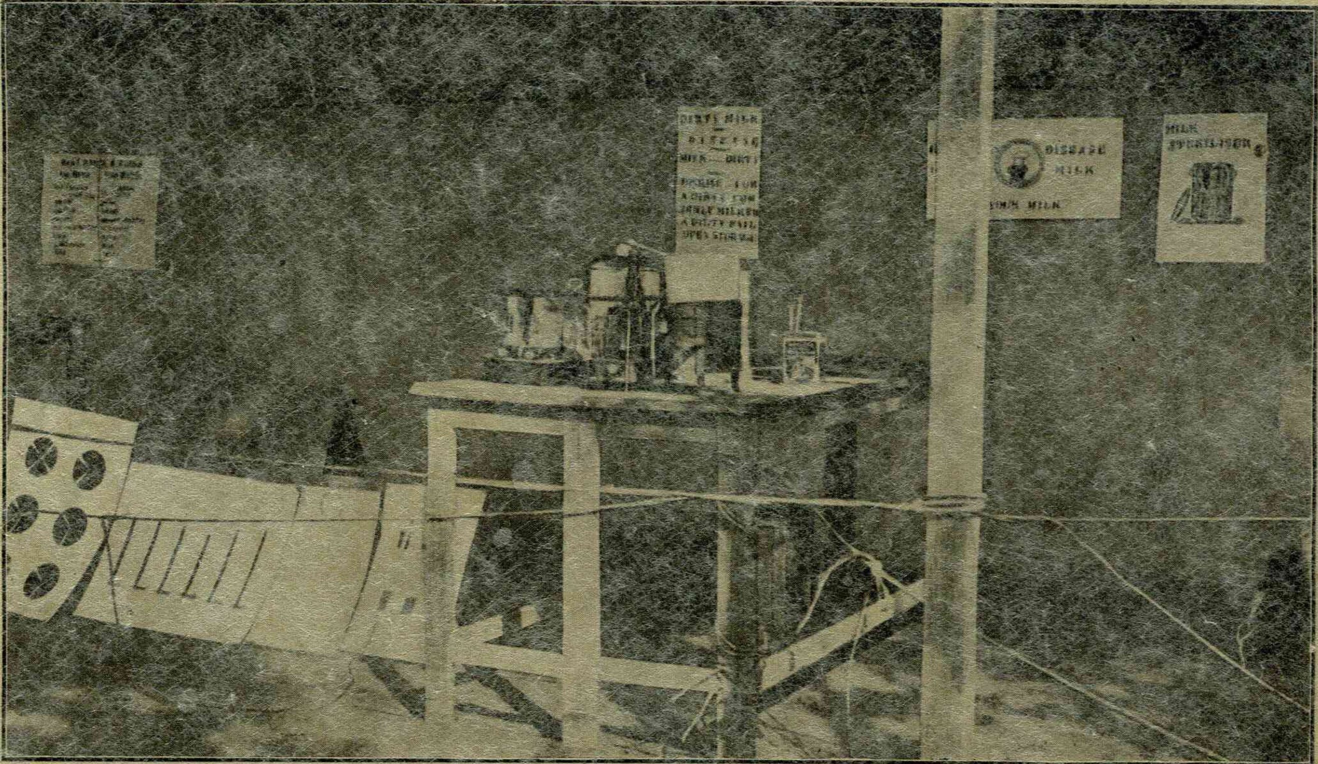
14271

INFANT WELFARE SECTION.

95

11522

CSL



INFANT WELFARE SECTION.

GSL

family actually came and sat in the room doing their work in an ordinary fashion. In the hygienic room, the floor had been made pukka with bricks, a window and a ventilator were provided and a chula with a proper chimney. A tap was found just outside the house. The interior of the house was suitably furnished and the things required for the baby were prominent.

A good many charts had also been prepared for demonstrations. These included diagrams showing the baby's increase in weight and height, a diagram designed to show what proportion of the baby's time should be spent in sleep, diagrams showing the composition of various kinds of milk, and the preparation of milk. Charts of infant mortality and its causes were also shown.

The helpers for the Section were almost entirely Indian Christian young women, either married or working as nurses and teachers. The majority did excellent work and threw themselves heartily into the spirit of the Exhibition.

The visitors appeared to be interested in much of what was shown, but with the women especially the attention had to be attracted and held, or else they were apt to pass on without having absorbed a great deal. Men seemed desirous to learn, asked intelligent questions and were at times freely critical.

THE CHILDHOOD SECTION.

Organisers: Miss GMEINER and RAGHUBIR SINGH, Esq.

The chief object of this Section was to draw the attention of people to the fact that special arrangements should be made for small children to keep them healthy and happy, thereby resulting in physical and mental development.

GSL

Miss C. Gordon of the Teachers' Training College, Saidapet, kindly lent some very interesting charts, maps, specimens of lessons for small children, exercise books with Nature Study records, drawings done by the little ones, models of paper cutting, clay, toy houses of cardboard, and many other interesting things, chiefly made by children, or things used for helping to develop their growing minds, and training the senses.

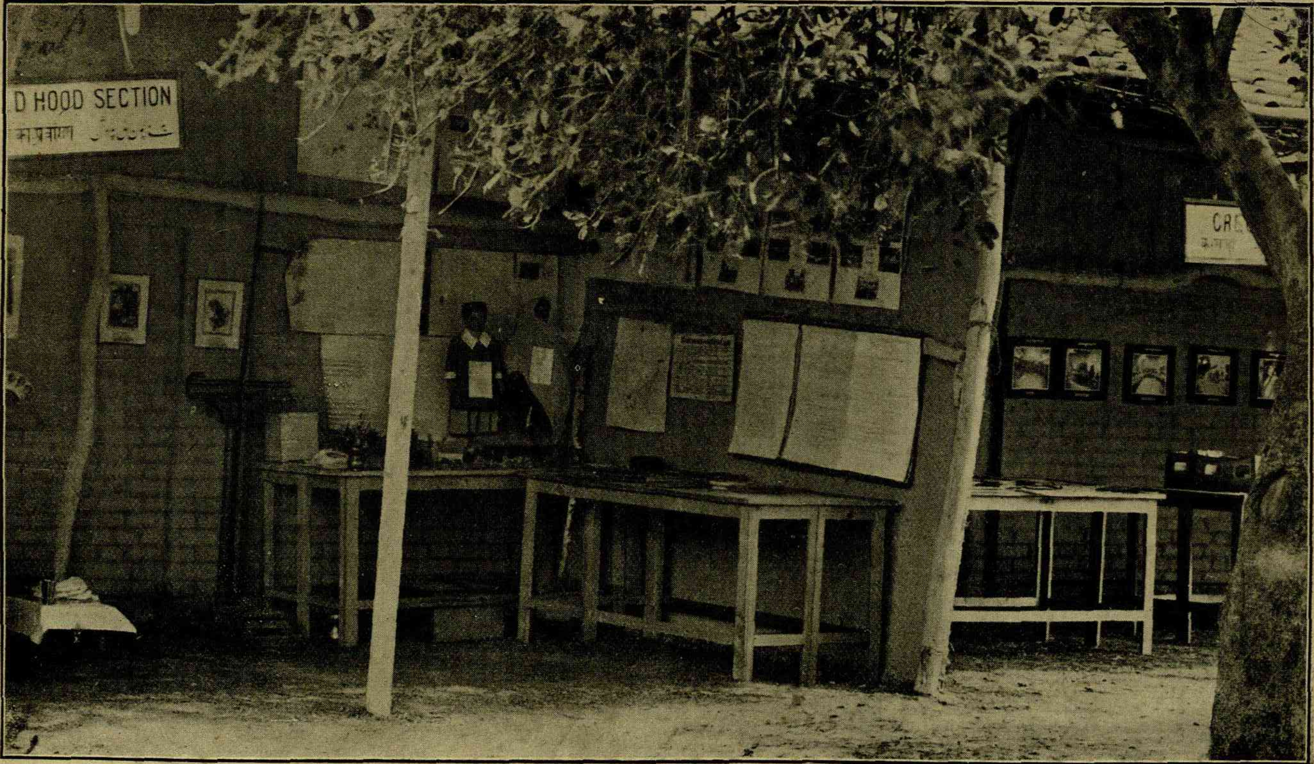
These were explained to the visitors.

There were two dolls, one dressed with shabby clothes and an "orhni" and the other with short, comfortable pyjamas, tunic, cap, socks and shoes. One was selected to show the prevailing medley of various styles of dressing girls, and the other as a more suitable dress for active life in school or at home.

There was a weighing machine where children below seven years of age were weighed, and their heights measured. A prize of Rs. 10 has been promised to those who get their children weighed regularly at least once a month for one year and bring the filled-in form to us.

There was a small chouki, covered with a white cloth, showing a thali with cups, plate, spoons and glass of suitable size for children; and a patra to sit on, also feeder and napkin to show that a child's clothes can be saved from getting soiled while eating. This diminutive and dainty dining set pleased many visitors.

Next was a wash-stand with the usual washing requisites, a nail brush, soap, sponge, tooth-brush, etc. This was to draw special attention to the necessity of keeping the children clean and to encourage the child to care for his own personal appearance, the small size of the furniture, etc., being suitable for use by the child.



CHILDHOOD SECTION AND CRÊCHE.

CSL

GSL

In one corner was a cot with mosquito net, sheets, pillow, mattress and blankets. There was also a sleeping suit in the bed to show that it is cleaner and healthier to wear different clothes at night from those worn during the day.

In connection with the Childhood Section and just opposite was the Children's Model Playground—a square 20′ × 20′, enclosed by a low wall. At one end, though not within the square, was a sand pit, supplied with plenty of clean sand, buckets and spades and an equal sized piece also filled with sand and containing a "Sliding Board." The children mounted to the top of this by means of steps and greatly enjoyed the sensation of slipping down. Classes from various City Schools gave demonstrations in Kindergarten and Montessori. Clay-modelling, paper-construction work, games and drill were shown as examples as to how children can get instruction and training without having to undergo any strain, simply through systematic play.

The Indraprastha Hindu Girls' High School, Queen Mary School, the Baptist Mission and the Government Model School very kindly gave demonstrations of infant school teaching and play.

A model crêche showed how Welfare work for women and children might be carried out in mills and factories.

Exhibits showing the Welfare work actually carried out at the Sholapur Spinning and Weaving Mills were explained by Dr. Mehta, the medical officer in charge.

Clear photographs of the Crêche and Welfare work carried out in Bangalore were kindly lent by the Health Officer.

Photographs were also shown from the Welfare Department of the Empress Mills, Nagpur.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

A Food Exhibit arranged by Major Armstrong, I.M.S. showed by means of graphs, charts and actual samples, the proper diets and food values for children at the different age periods.

TRADES EXHIBITS.

Various Commercial Firms showed goods designed for the use of mothers and children, for improving the hygiene of the home, or for supplying suitable food, pure milk, etc. These roused considerable interest and enquiry.

Among the exhibits were the following :—

Messrs. Bali & Co., Engineers, Delhi, exhibited modern hygienic machines.

Messrs. Butto Kristo Paul, Calcutta, The Pearson Anti-Septic Co., and the Chlorogen Co., exhibited the various types of disinfectants produced by them.

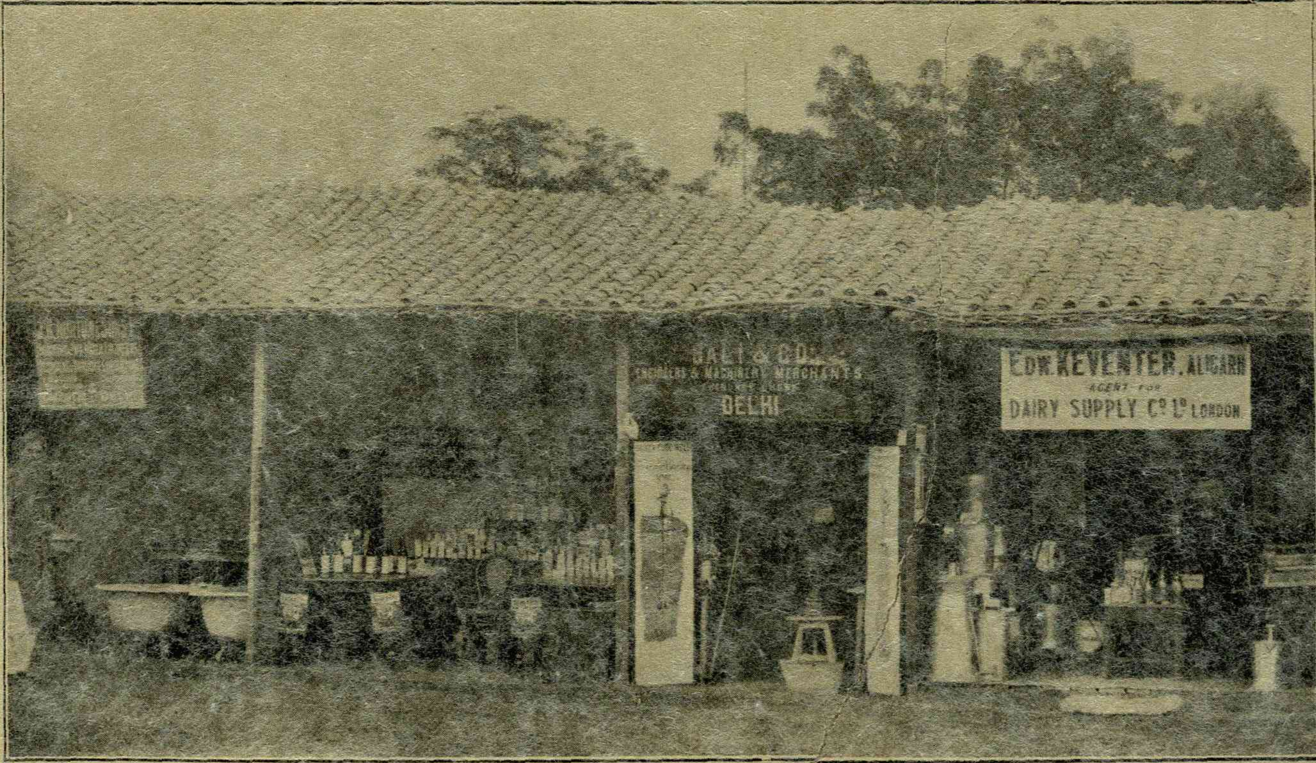
Messrs. Butterworth & Co., Calcutta, exhibited books dealing with the subject of Maternity and Child Welfare, at the Publication Stall.

Messrs. Doulton & Co., Bombay, had a good display of modern sanitary appliances in the hospital section.

Glaxo. The value of this food for children was advertised by means of descriptive posters and free distribution of sample tins.

Messrs. Govan Bros., Delhi, displayed Alpine Evaporated Milk, Cocotine (a vegetable food produce), Household Flour, and Wheaten Whafer (as supplied by the Delhi Flour Mills Co., Ltd.).

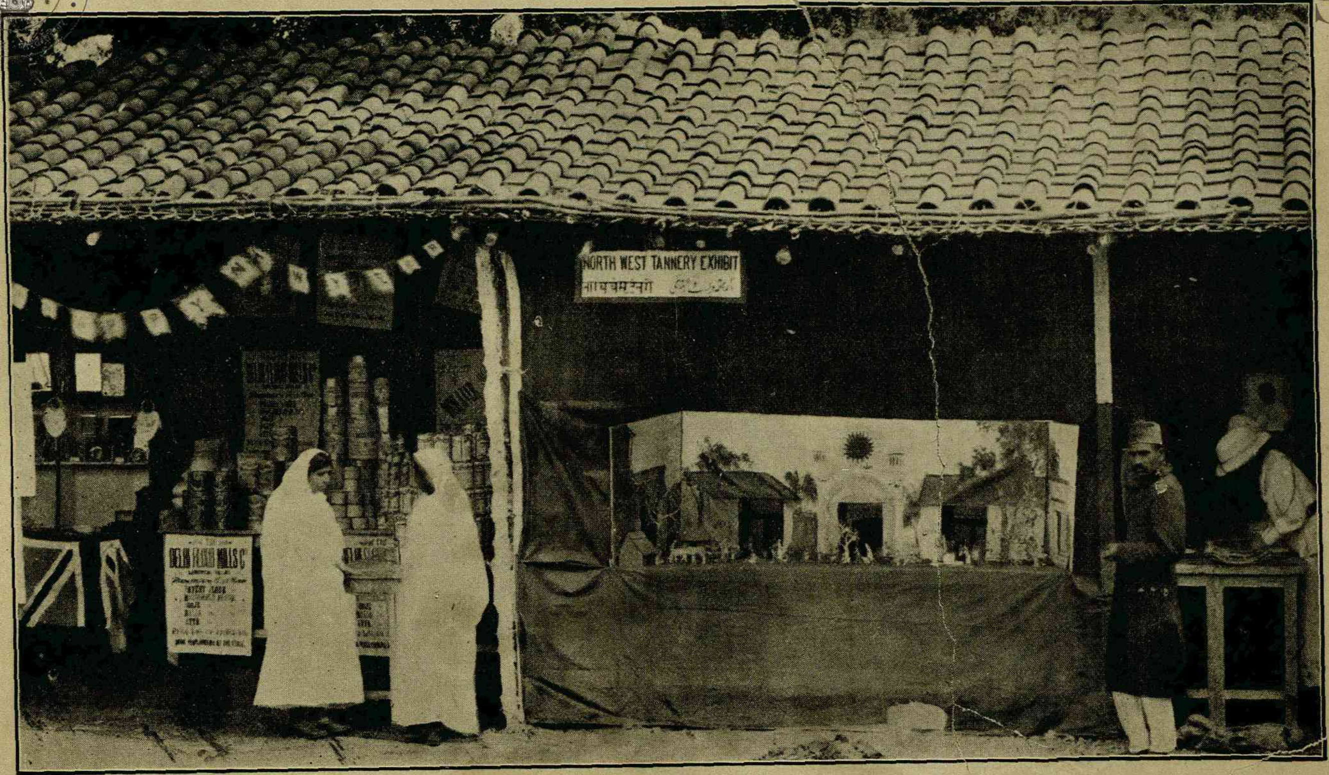
Mr. Edward Keventer, Delhi, has an effective display of the various types of dairy apparatus, including churns, pasturisers, sterilisers, etc. This gained the gold medal offered for the best Commercial Exhibit.



TRADES EXHIBITS.

28

CSL



NORTH-WEST TANNERY EXHIBIT.

CSL

Lister Antiseptic Co. Free samples of antiseptics and disinfectants were distributed to the visitors at the Exhibition.

Messrs. J. B. Norton & Sons, Calcutta, had a comprehensive exhibit shewing sanitary commodities.

Messrs. Allibhoy Vallijee & Sons, Multan, had an effective display of furniture suitable for hospital wards, operation theatres, etc.

Photographs of the Exhibition were taken by Messrs. A. R. Datt and Messrs. Modi, Delhi, some of which are included in this Report.

EXHIBITS OF THE NORTH-WEST TANNERY CO., CAWNPORE.

The North-West Tannery Section had two divisions. One half showed the actual work being done among employees of the North-West Tannery. The walls were lined with a series of pictures, large and small, showing the life in Allenganj, the Workmen's Settlement—the work being done in school, on the play-ground and in the dispensary. In addition, samples of work done in the Factory were exhibited—children's shoes and boots, also bags and saddles.

The second division was labelled "Welfare—Neglect." This was composed of two scenes side by side contrasting Welfare and Neglect, one a model dispensary and pukka house, the other a bazaar and katcha house. In the foreground were small clay figures, portraying village life. The chief characters, those which told the story of Welfare and Neglect, were represented by painted clay figures. These moved on four hidden wheels. On the 'Welfare' side five figures moved from a clean environment and entered a pukka home. These represented education, sunshine, cleanliness, health and fresh air.

CSL

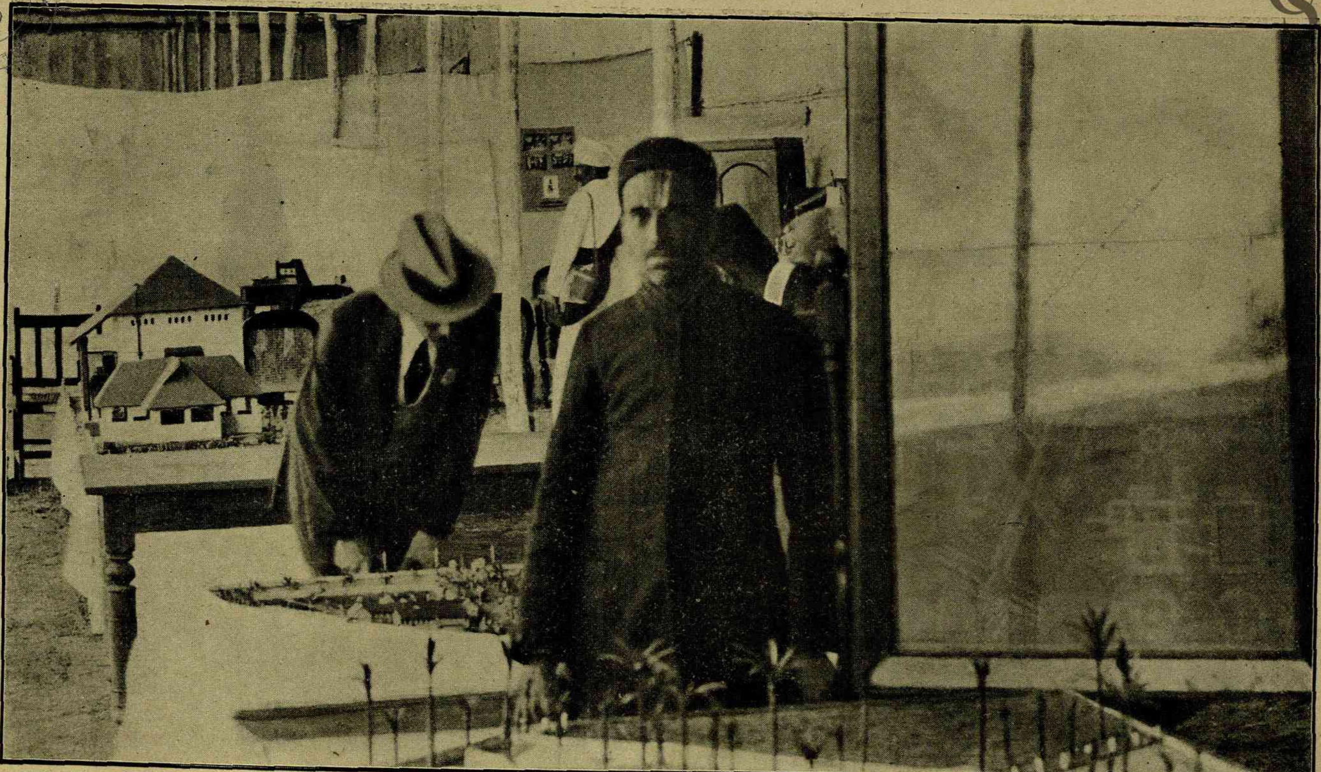
The result of the presence of these helpers in the home was shown by five figures moving out of the same door. These represented: knowledge, normal childhood, enjoyment of life, health, and happiness. On the 'Neglect' side five figures came from unpleasant surroundings and entered a katcha house. These were ignorance, squalor, dirt, carriers of disease, and bad air. The evil effects of their presence was shown by five figures coming out of the house, *i.e.*, fear, abnormal childhood, death, disease, and unhappiness. The figures showing the results of 'Welfare' and those showing the results of 'Neglect' met between the two scenes and moved side by side through a large archway marked "Future of India" thus emphasizing the contrast between the effects of the two.

The Sanitary office of the U. P. kindly loaned the stationary figures in the foreground. The special figures representing the cause and effect of 'Welfare' and 'Neglect,' were made in the Government Art School, Lucknow. The scenery was prepared by the Alliance Advertising Association, Calcutta. These exhibits were explained by Mr. and Mrs. Wiser of the North-West Tannery Co.'s Welfare Department.

MADRAS SECTION.

Organisers: Government of Madras, Government Maternity Hospital, Madras, O. R. CHETTY, Esq., M.A., B.L. Dr. VIRASINGHE, Mrs. WHITEHEAD.

The Madras Exhibit was put up under three heads:— The Social Service Section, The Maternity Hospital, The Co-operation of Madras Child Welfare Scheme.



MADRAS SOCIAL SERVICE EXHIBIT.

GSL

The Social Service Section comprised—

A. Model Dwelling-houses.

1. Estimated to cost Rs. 1,000 including the cost of land with an area of 500 square feet at Rs. 500 per ground plot. Monthly rent Rs. 5. Twenty years' purchase with interest at 5 per cent. is Rs. 7 per mensem. Accommodation for one small family.

2. Estimated to cost Rs. 2,000 including cost of land with an area of 900 square feet at Rs. 500 per ground plot. Monthly rent Rs. 10. Twenty years' purchase with interest at 5 per cent. is Rs. 13-8 per mensem. Accommodation for two small families or one big family.

3. Estimated to cost Rs. 3,000 including the cost of land with an area of 1,600 square feet at Rs. 500 per ground plot. Monthly rent Rs. 15. Twenty years' purchase with interest at 5 per cent. is Rs. 20 per mensem. Accommodation:—Two bedrooms, one living hall, one kitchen, one store room, one bathing place, latrine, one big court yard, one small court yard, one verandah adjacent to the hall and an open verandah at the front. The specification for the above three:—Walls brick in mud and plastered with one coat of chunam. Doors and windows are teak wood panelled. Roof with pan tiles, chunam borders, and teak rafters.

B. A model of the dwelling houses of the Untouchables in Madras, shewing the poorly built clay houses with palmyra-leaf roofs, the highly insanitary conditions produced by the absence of drainage or conservancy system, and insufficient water supply. Social Workers do most of their work in such areas.

C. A diagram and model combined to illustrate the very ruinous terms on which the Sowcar (the ursurious money-lender) lends money to the poor, and the com-

CSL

paratively favourable terms on which the Co-operative Societies advance money to their members.

D. Models of the following :—A village hall, a public bathing fountain, a model village school, a model cattle yard.

These models were all designed and executed to a scale of 1 inch to a foot by Mr. C. V. K. Chetty, B.A., B.Sc., A.M.I.E.E., Assistant Engineer of the Madras Corporation, at the request of Mrs. Whitehead, and secured a medal for the Madras section.

E. Welfare work at the Buckingham and Carnatic Mills was shewn by two models and a plan. The owners of these mills offer model houses on cheap terms, recreation grounds, educational and industrial training for the children of the operatives, and even cinema shows to the children on holidays.

THE MATERNITY HOSPITAL.

This exhibit was divided into four parts :—

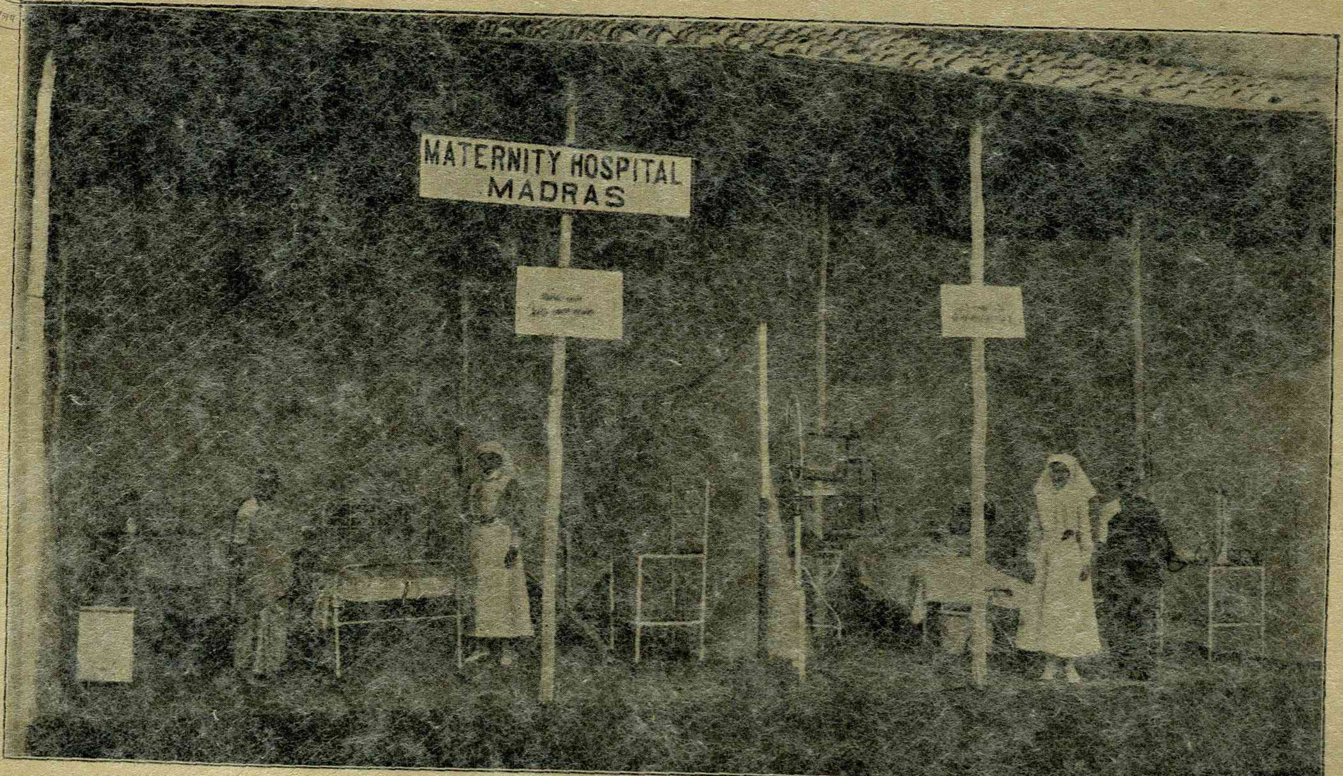
1. An Out-patient Department where women and young children sent and brought by the Social Service workers from different parts of the city are attended to by a medical woman, given free medicine, and if necessary sent to hospital for admission as in-patients.

2. A Labour Room containing all necessaries for the confinement, and an incubator to rear premature infants.

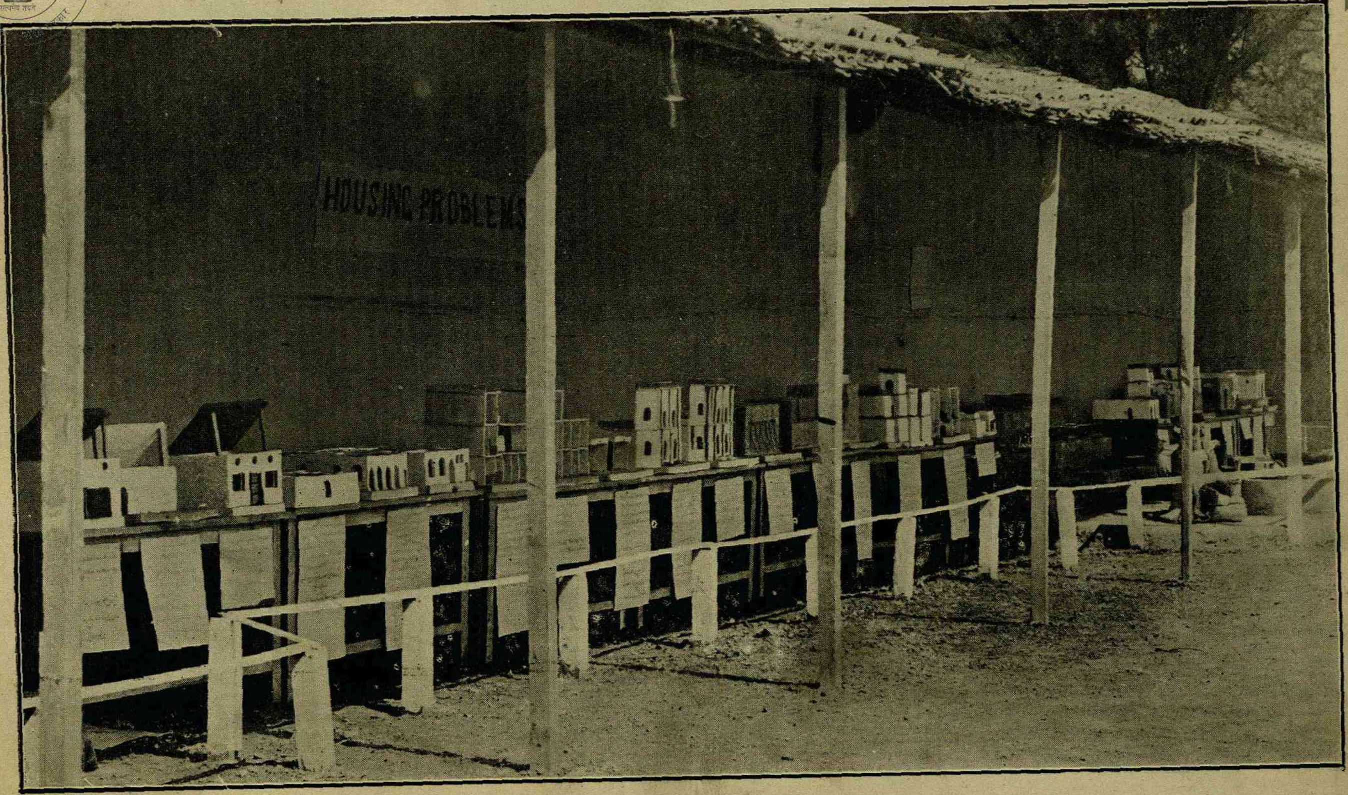
3. A Lying-in Room. A special spring cot and a baby cradle are provided for each patient. Special articles are provided for the care of the mother and child, and all furniture is specially designed and easily kept clean.

4. The Baby Section. A collection of children's cots, cradles, chairs, perambulators, play-grounds and

CSL



MADRAS MATERNITY HOSPITAL EXHIBIT.



DOMESTIC HYGIENE and SANITATION SECTION.

bath tubs were exhibited, together with a number of suitable foods for the mother and children. A weighing machine was shewn adapted for recording the baby's weight at different ages.

THE CORPORATION OF MADRAS CHILD WELFARE SCHEME.

The exhibits representing this scheme were under the following heads:—Prematernity, Maternity, Infant Welfare, Childhood, Domestic Hygiene and Sanitation and Home Nursing. The exhibits consisted of models, diagrams and posters in English and in Hindustani. Some of the models and photographs, were of specially insanitary houses where cases of labour had been conducted by the nurses employed under the scheme. Other models emphasised the need for clean sanitary homes; for a properly conducted dairy; and for the teaching of Domestic Hygiene and Infant Welfare in schools.

A model of Child Welfare Centres was shewn, consisting of the following blocks:—Prematernity and Maternity Home, Infant weighing and consultation room, Health Visitors' Class room, Crêche, Nurses' Duty room, Nurses' Quarters. This model was found useful in explaining to the public the various aspects of Child Welfare work.

DOMESTIC HYGIENE AND SANITATION SECTION.

Organiser: Dr. K. S. SETHNA, D.P.H.

This section occupied a space of 500 feet long and 10 feet wide. It was divided into groups each of which was illustrated by a large number of clay models. These models depicted the actual appearances seen in Indian cities.

Housing problems.—Models of thickly congested localities were contrasted with areas opened out under improvement schemes. Insanitary rooms and houses of various classes and types, schools, shops, godowns, bastis, latrines, drains and soak-pits were illustrated. The faults in each and how they might be remedied were demonstrated.

Delhi Water Works.—A model of the Delhi water works demonstrating the method of classification and purification of the water was exhibited.

Malaria and Mosquitoes.—The relation between mosquitoes and malaria was pictorially shewn and directions given how to prevent infection.

Disease and flies.—The life-history of the fly was illustrated together with various devices for their destruction. Pictures shewed how diseases were transmitted by flies to man.

Plague and rat destruction.—The dependence of human bubonic plague on an rat epizootic infection was shown, and the various methods for destroying rats were demonstrated.

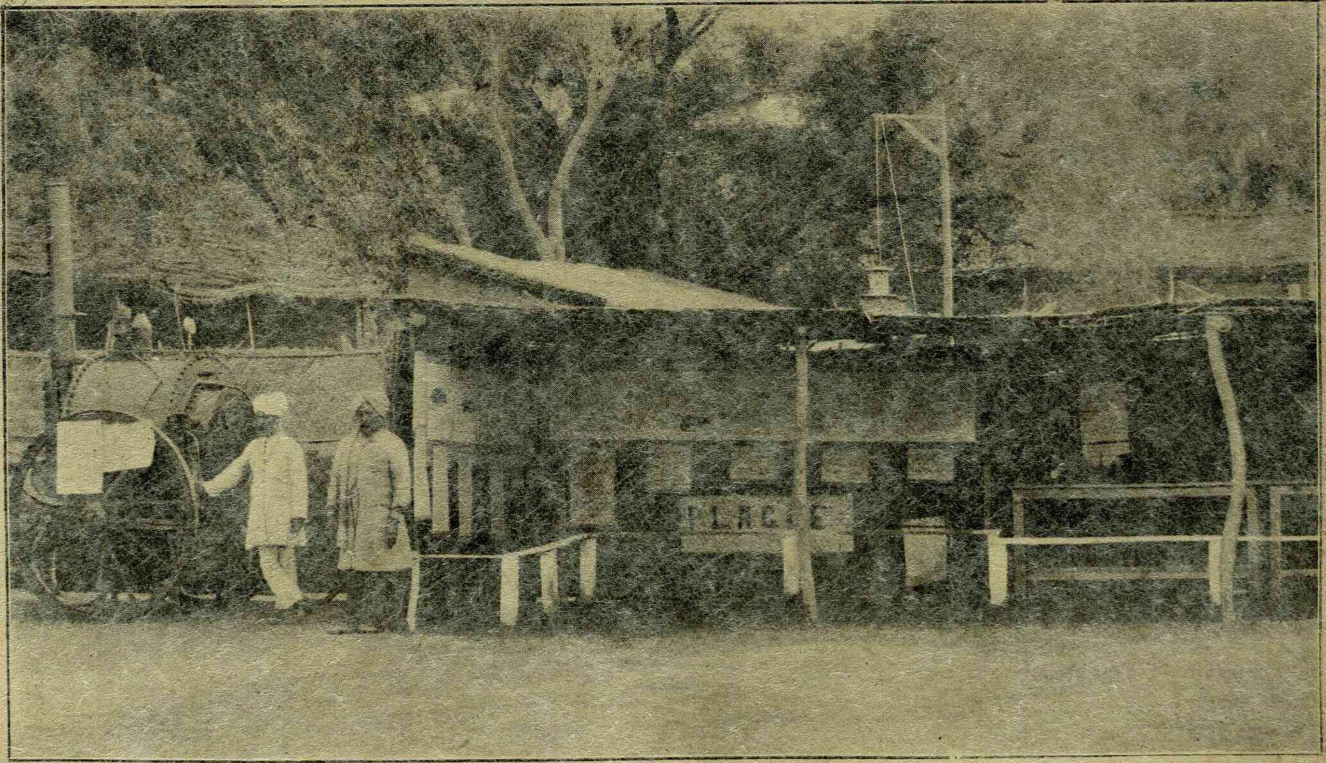
Tuberculosis.—The different ways by which tuberculosis spreads in a community, and how such infection is to be avoided, were shewn by means of models, pictures and diagrams.

The Lucknow Anti-tuberculosis League exhibited the posters, mottoes, folders, leaflets, etc., prepared by the League for propaganda work against Consumption.

Small-pox and vaccination.—Pictures and charts demonstrated the value of vaccination for the prevention of small-pox.

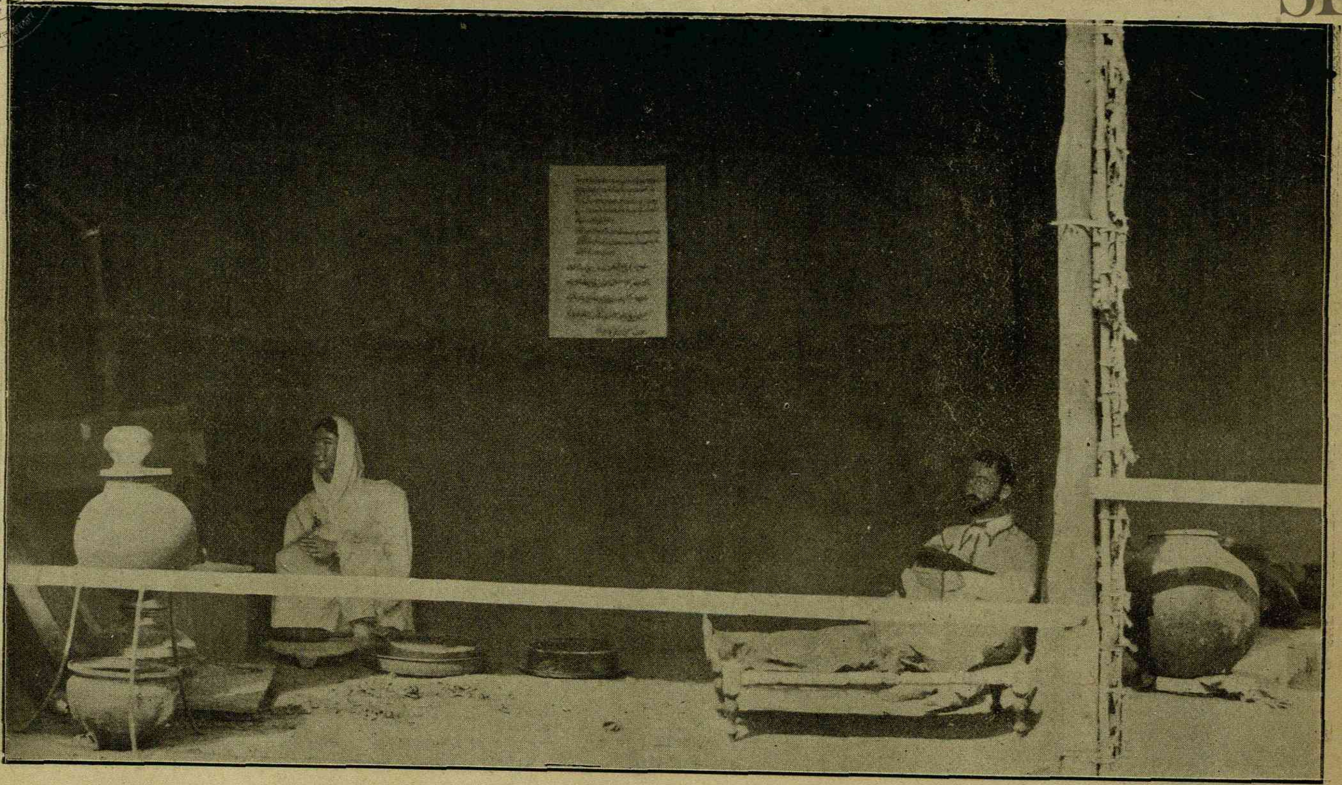
Infectious diseases.—The modes of infection and prevention of the more common skin complaints and infectious diseases were also shewn pictorially.

Disinfection.—The various methods used for disinfection were demonstrated.

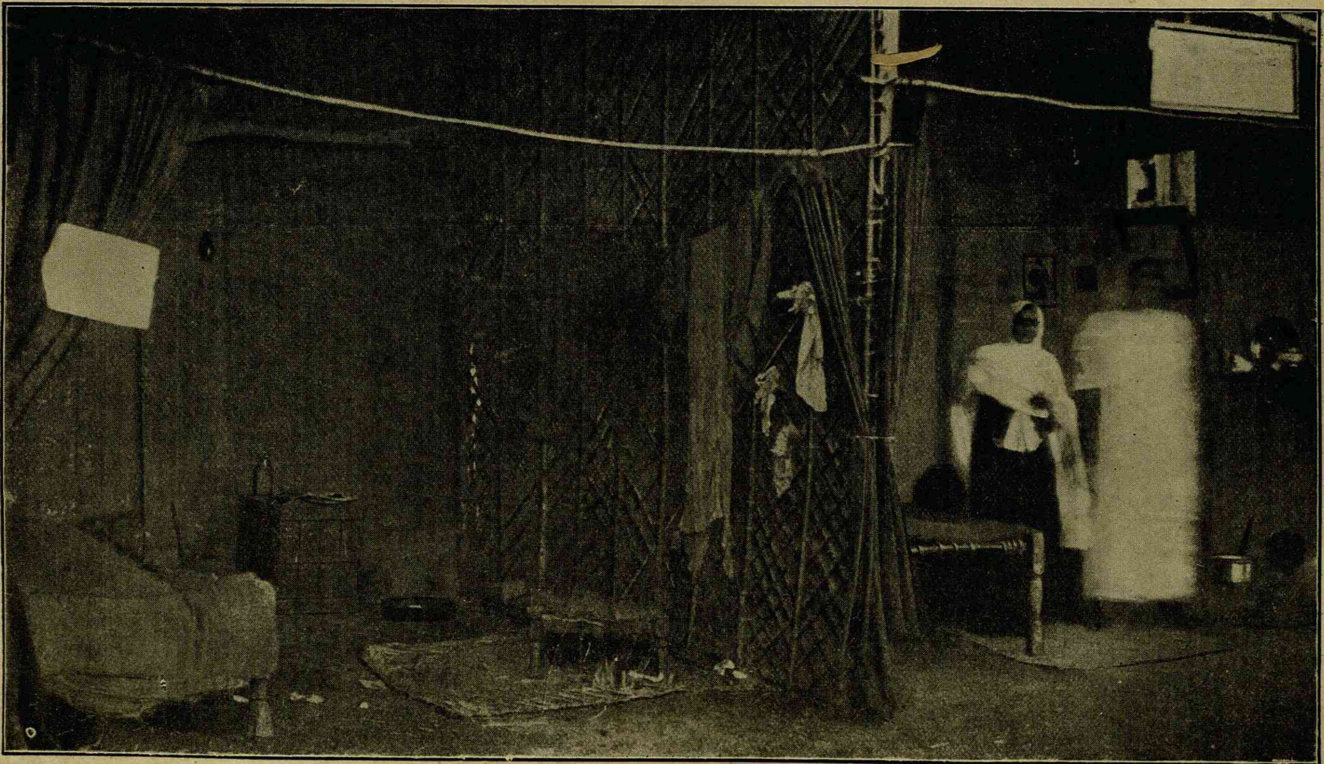


DOMESTIC HYGIENE and SANITATION SECTION.

CSL



DOMESTIC HYGIENE and SANITATION SECTION.
Models illustrating transmission of disease.



HOME NURSING SECTION.
Room of neglected patient.

CSL

inexpensive clothing and bed linen, and with hair neatly braided. The floor consisted of the ordinary Indian mud, but was swept clean, and covered near the charpoy with a clean piece of chuttai, costing about 4 as. Water and food were stored in clean gumlas and covered. Milk was kept in a lota and covered with a clean muslin rag. Clean clothing hung neatly on a nail against the wall. A cheap wooden cupboard held all the utensils. The window was open, allowing a current of fresh air to enter.

Four simple lectures were given on—

Preparation of a sick room.
Sponging and changing bed linen.
Diet in sickness.
Making of poultices, fomentations, and temperature taking.

FIRST AID SECTION.

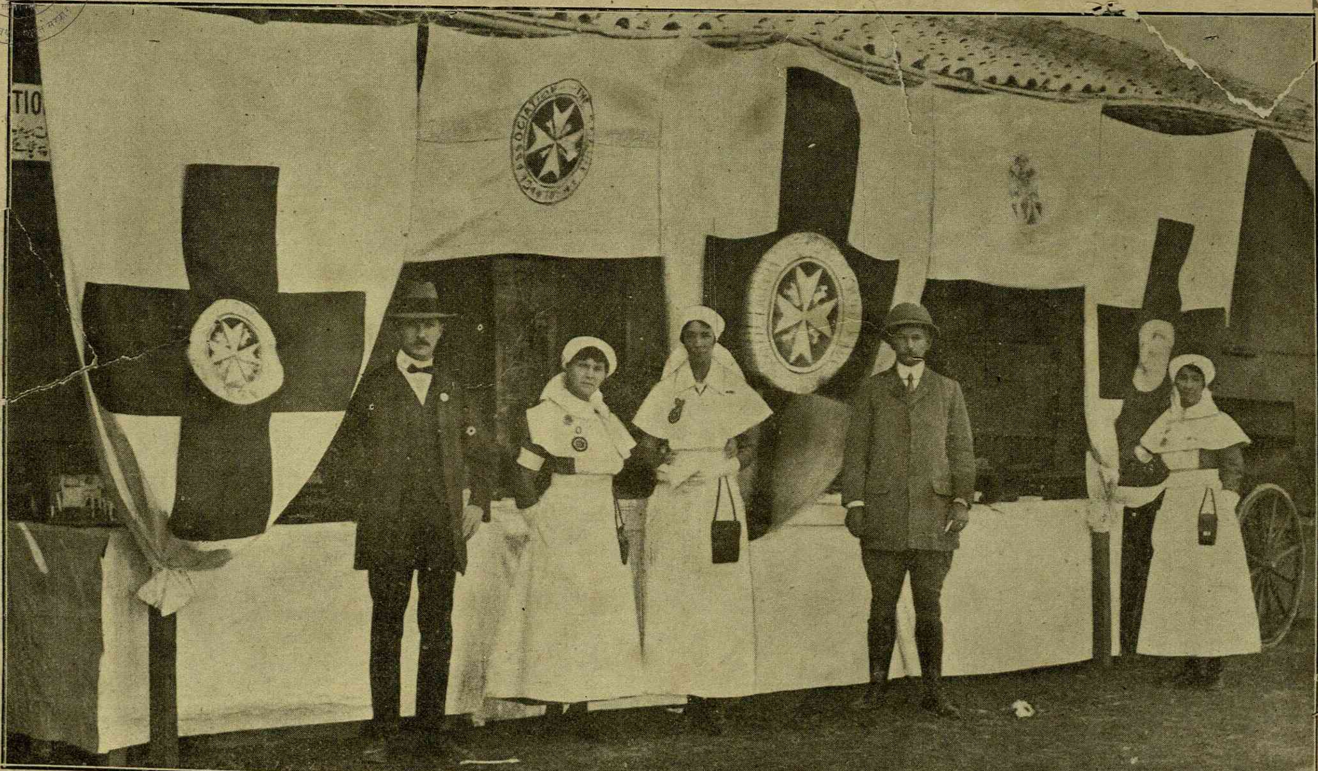
Organisers: W. G. Hanrahan, Esq., M.B.E., and the Hon'ble Mrs. Spence.

This Section consisted of two parts. A St. John Ambulance Exhibit which illustrated the various activities of that Society and included the different text-books and other articles produced by them. A very large sale of the St. John Ambulance Association publications took place, towards which a subsidy was given from the Exhibition funds.

Over 4,000 publications were sold, and more than 20,000 leaflets and pamphlets distributed.

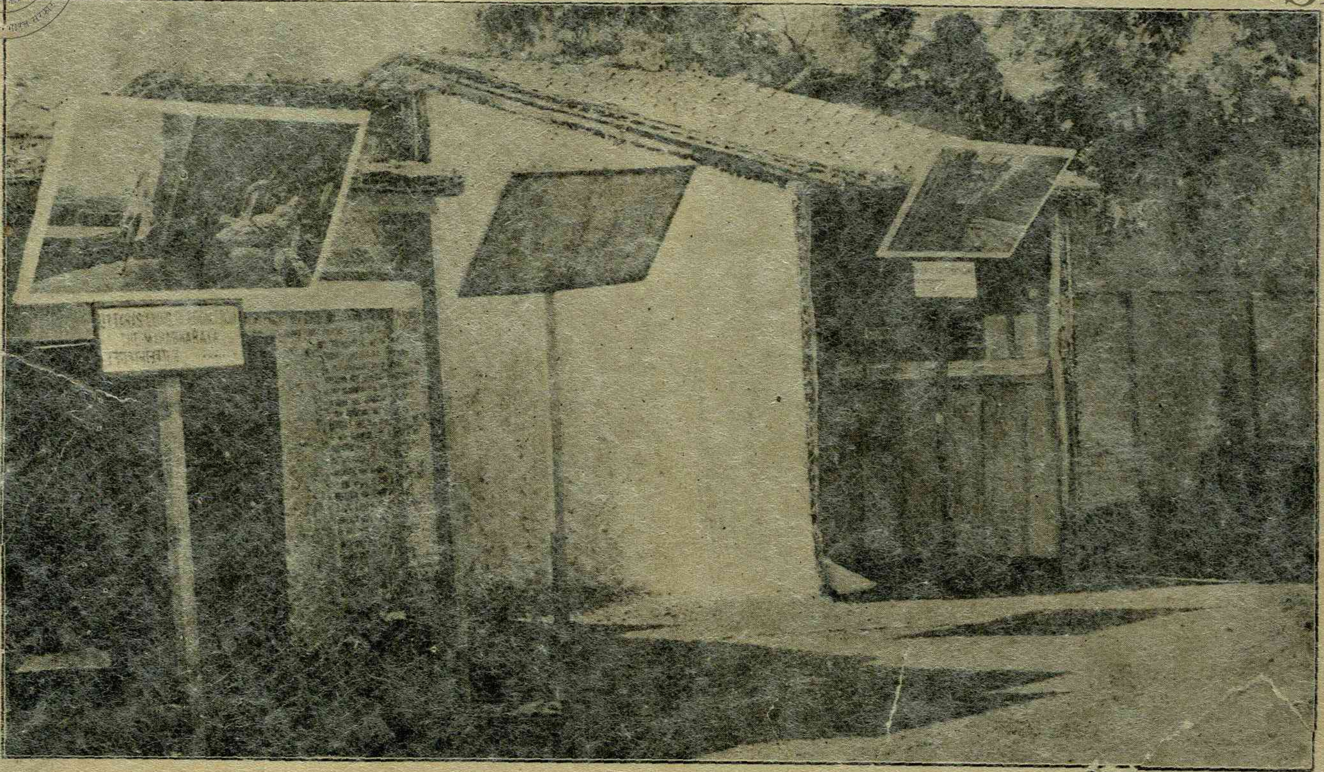
The First Aid Exhibit illustrated how First Aid might be applied to an Indian home and frequent Demonstrations and Talks explained the various simple remedies and methods which may be employed.

CSL



FIRST AID SECTION.

CSL



"UTTARA'S LYING-IN ROOM."

MINISTRY OF CULTURE · GOVERNMENT OF INDIA

GSL

MATERNITY AND CHILD WELFARE ACCORDING TO THE SHASTRAS.

UTTARA'S LYING-IN ROOM.

Organiser: LALA BHAGAT ISHWAR DAS.

"Its description, from the Mahabharata, Chārka and Sushruta is appended. Its size, its doors and windows, were taken from the description of houses in Shukraniti and Matsya Puran. It was an airy, clean and commodious room, answering all the needs of a well-ventilated house. In addition, it had the following to recommend itself to the notice of the orthodox as well as to the advanced section of the Indian community.

Its main door, facing the East or North, and the bed in it, placed with the head towards the East or North, were designed probably to prevent a conflict between the vibrations, which the fires in man and in the universe produce. Health conditions would require that the vibrations, which the Sun rising in the East produces in all substances, should correspond with those in man and in everything he uses. So also should the magnetic currents passing from North to South.

It is probably in view of similar considerations that Warahi Sangita and other Vastu Shastras laid down that in the construction of beds care should be taken that the Pavas (legs) have the trunkside below and the shorter and longer sides (Serus and Behis) should branch from these, as in the tree, so that whatever currents pass from mother Earth, in a tree, may do so in the bed, and the position may not become reversed by the mistake of the carpenter. The Tinduka wood bed, placed in the room, had to be so constructed.

GSL

The position of the rooms for a kitchen, a privy and a bath, as parts of a dwelling house, also followed certain injunctions which had to be borne in mind.

The woods, the fires, the waters, the mustard and other drugs, the Tinduka charcoal possess their healthy and germicide influences probably by reason of the same vibration theory. Every one of these is in touch in nature with the kind of vibrations, which produced them and brings the patient under their control. The evidence is found in the sweet scent with which they fill the room and produce conditions unhealthy for the life of the germ.

This is accompanied by the Yajna outside, which helps the process materially. The priest, who knows how to produce the required vibrations, destructive of Rakshasas, by the right pronouncement of the Mantras prescribed, is able to set them in motion in the patient and her attendants and thus help the healthy growth of the mother and her babe.

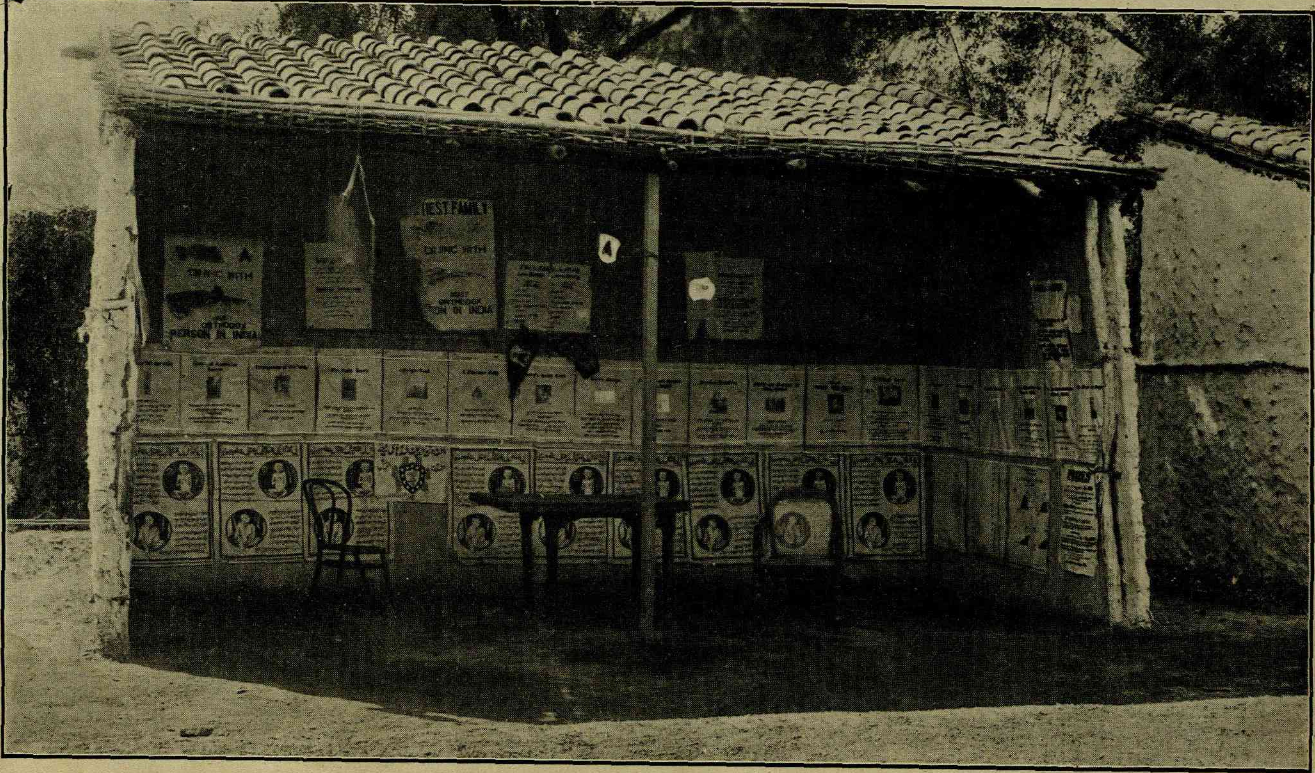
The various exhibits in it are given in the attached list.

The Kitchen.—The exhibiters were enabled to discover all the injunctions about this. They had the ordinary chulas prepared. There was only one thing peculiar, the utensils for milk, curd and for curdelling of the latter made of *Gular* wood.

The Bath.—It had no tub in it, only a chauki and utensils for water. For washing of hands pure earth was placed in it. Dhup was kept burning for removal of all germs. What could not be arranged was the old hand and hair washes. An oilsman, in the Turkoman gate, was recommended as preserving the memory of the old prescriptions and perhaps the ingredients also but could not be reached.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
संस्कृति मंत्रालय · भारत सरकार

CSL



POSTER EXHIBIT.

79

CSL

There was an ivory comb in it and Surma for the eyes, the walnut bark and Kiker Datan (tooth brushes), renowned for their virtues of preserving the eyes and teeth free from dirt and germs. For ivory, as pure among the bones, authority was found in the Bhagwata.

Outside the Lying-in Room was a large picture giving the Mahabharata idea of it, prepared by a local artist of Delhi."

POSTER EXHIBIT SECTION.

Organisers: Government of India, Department of Sanitation (Lieut.-Col. HUTCHINSON, I.M.S.). Victoria Memorial Scholarships Fund; Dr. M. I. BALFOUR, W.M.S., Dr. D. F. CURJEL, W.M.S.

Sets of large posters show the Care of the Expectant Mother, Preparation for Labour, the Healthy Baby, the Advantages of a Hospital, etc., together with illustrations and descriptive text. These posters will form the beginning of a permanent Poster Bureau, and be available on loan for the use of Welfare Workers in any part of India.

SERIES "A."

"Care of the Expectant Mother."

Poster 1—

Healthy conditions before birth of child are necessary if :—

(*a*) Mother is to make a rapid recovery after birth of infant.

(*b*) Infant is to be healthy.

Healthy conditions are :—

1. Well lit and ventilated living and sleeping room.

Poster 14—

Baby's daily bath.—Get all the articles needed ready first. Let the water be warm, but not too hot. Bathe baby quickly. Dry baby carefully. Clothe him and give him a feed.

Poster 15—

Baby's clothes.—Proper clothes prevent chills. Protect baby's abdomen. They should be **light, warm** and **loose.**

Poster 16—

Regular sleep.—Protect Infant from flies and mosquitoes. Flies cause sore eyes. **Mosquitoes** cause Malaria. Both disturb the rest of the infant.

Poster 17—

Fresh air and play mean health.—Fresh air and exercise mean good blood and strong muscles.

Poster 18—

Regular weighing.—Baby should weigh from 5 lbs. to 7 lbs. at birth. He should double his weight at 5 months and treble it in a year. If the weight falls or remains stationary consult a doctor.

SERIES "D."

"The advantages of a Hospital."

Poster 19—

Advice and medicine to a sick mother.—Illness which is treated early is easily cured.

Poster 20—

Care of the mother during illness.—Mother is relieved from all household worries.

Poster 21—

A Labour Room.—One of the chief dangers of labour is the entry of germs into the woman's body causing puerperal fever (sepsis). Another is the occurrence of mishaps which delay the birth. In hospital a woman has skilled attendance and all necessary appliances so that any mishaps can be remedied at once. She has perfect cleanliness so that there is little fear of sepsis.

Poster 22—

Lying-in Room.—Many lying-in women confined at home are attacked by diseases due to lack of care, impure air, insufficient food and dirty surroundings. In hospital there is skilled attendance, fresh air, good food, and cleanliness.

Poster 23—

Babies born in hospital get a good start in life.

Poster 24—

Care of Babies at Baby Clinics.

Poster 25—

Save the Babies !

Poster 26—

The best substitute for mother's milk.—Milk given under ideal conditions. The stall is clean and well ventilated The milker is clean. His hands and the cows' udder have been washed. There is a clean vessel to receive the milk.

Poster 27—

Substitute for mother's milk.—Milk given under imperfect conditions. Both surroundings and milker are dirty.

Sahazada Saiduzzafar Khan, Professor, Medical College, Lucknow, very kindly lent charts and posters in Urdu on the subject of Infant Mortality, Child Welfare, and Insectborne Diseases.

THE SOCIETY FOR PROMOTING SCIENTIFIC KNOWLEDGE, LAHORE EXHIBIT.

The following were exhibited :—

1. A series of photo-enlargements and coloured paintings, showing—

    (*a*) Jenner vaccinating his own son.

    (*b*) A happy mother suckling her baby, with the following appropriate motto :—

    Mother's milk is the baby's birth right.

    "The world has no such flower in any land,
    And no such pearl in any gulf the sea,
    As any babe on any mother's knee."—*Swineburne.*

    (*c*) Save the Baby !

    A very attractive picture showing a baby about to fall from a precipice into the clutches of the demon of death, who depends for his fall on Ignorance, Impure milk, and Poverty. Mothers of the Baby Saver's League are shown in the background as running to prevent the fatal fall.

    (*d*) An English Prize Baby at the Lahore Baby Show, 1919.

    (*e*) A six months' old Indian Baby, born under the care of the Infant's Welcome, Lahore.

    (*f*) Two young children and their mother suitably clothed.

2. Posters on Mosquito-Danger and Fly-Danger in Urdu, Hindi, and Gurmukhi published by the Society.
3. Pamphlets on the prevention of Malaria, Cholera, Tuberculosis, Plague, and Small-Pox, in Urdu, Hindi, and Gurmukhi, and on Rearing of Infants, Health of Expectant Mothers and Infants, Infant Mortality, etc., in English and different vernaculars, published by the Society. A large quantity of these were provided for free distribution, and were taken up by the visitors.
4. Specimens of literature received from various Baby Welfare Societies in England and America.
5. Copies of a book entitled *Bachcha* (The Child) which deals with the subject of care and bringing up of Infants and the home treatment of common ailments, by Captain M. A. Kureishi, I.M.S., published by the Society in Urdu and Hindi, was for sale.

These exhibits were got up by Mrs. Caleb and Prof. B. L. Bhatia, and the Exhibition Committee made a donation of Rs. 300 towards the expenses.

Posters, leaflets, and books exhibited can be ordered from the Secretary S. P. S. K., Lahore.

WOMEN'S CHRISTIAN TEMPERANCE UNION EXHIBIT.

Organiser: Dr. Maud Allen.

The Charts exhibited at the W. C. T. U. Stall, showing the effects of Alcohol on Children, were prepared from material collected for the "International Congress on Hygiene and Demography" held in Washington D.C. 1912. The following is a brief discription of the Charts shown:—

No. 1.

The Child's birthrights are—
To be well born.
To be well cared for.
To be well trained.
Drink spoils all three.

No. 2.

The Chart which attracted the most attention and which was best understood by the uneducated, consisted of two squares filled with the pictures of babies. Three dressed in black represented the ones who were still-born or died before they were two years old, and those in white the ones who lived. The children of drinking mothers showed a mortality of 55 per cent. while the square representing the children of sober mothers showed a mortality of 23 per cent.

No. 3.

The school children enjoyed the picture showing the difference in size of two chickens, one of whom had had a daily dose of Alcohol.

No. 4.

"ALCOHOLISM AND DEGENERACY."

The now famous study was carried out by Prof. Demme of Switzerland. Abnormal children and those who died were represented by little black squares and those who were normal by red ones. He compares the

MINISTRY OF CULTURE · GOVERNMENT OF INDIA

GSL

children of ten temperate and ten intemperate families showing the following results :—

61	Children in 10 temperate families :	57	Children in 10 intemperate families :
5	died in infancy	25	died in infancy
2	had St. Vitus dance	1	had St. Vitus dance
2	backward	6	were idiotic
2	deformed	5	were deformed
50	normal	5	were dwarfed
		5	epileptic
		10	normal.

No. 5.

This chart showed the difference in Scholarship in Italian children who drank wine and those who did not.

No. 6.

" Parents drinking weakens Children's vitality." The Chart under this head shows by means of wide red and black lines the percentage of deaths among children in abstaining families and drinking families. This was worked out by Prof. T. Laitinen of Finland. The diagram showed that drinking parents had 6½ times as many weakly children and lost ⅓ more by death than the abstaining parents.

No. 7.

This Chart showed that five times as many feeble-minded children as normal children of the same class had both parents Alcoholic.

These figures are the result of investigation carried out in England by W. A. Potts, M.D., for the Royal Commission on Care and Control of the Feeble-minded.

No. 8.

Prof. G. Von Bunge of Switzerland has shown that the percentage of tubercular children increases with the amount of Alcohol taken by the father.

No. 9.

Showed that defective children increase with Alcoholization of fathers.

The effect of Alcohol on plant life was shown by two pots of wheat, one of which had been given only water and the other water with one-third alcohol.

The effect of Alcohol on food was shown by two glasses, one of which had bread in water and the other bread in Alcohol.

We were happily surprised at the interest shown in the exhibit. A number of men copied all the Charts while others asked where they could be obtained.

No doubt drink is less in India than in European Countries, but it is rapidly increasing. We should not wait until it has caused the awful damage here which is shown in the Charts exhibited before teaching the people its evil effects.

PUBLICATIONS EXHIBIT.

Organiser : Mrs. GREENSHIELD.

Here was shewn a collection of literature dealing with Maternity and Child Welfare, published in India, including Health Books written by Her Highness the Nawab Begum of Bhopal; by Rani Surat Kunwar of Khairigarh, and Publications by Messrs. Butterworth and Company, including "Maternity and Infant Welfare in India" by Dr. Ruth Young. (Price Re. 1-8-0.)

CSL

Also useful sets of Health Primers (received through the Education Department), as used in various schools in India, were shown, together with Literature on the same subject from different parts of India.

This section was visited by many interested students, teachers and workers, who spent a considerable time inspecting and taking down the names of useful books.

PATHOLOGICAL SECTION.

Organisers: Lieut.-Col. Frost, R.A.M.C., Dr. Agnes
Scott, W.M.S.

This section was accommodated in two small huts at one side of the Purdah Gardens. One hut was allotted to Colonel Frost, R.A.M.C., for Venereal Diseases and the other was used for Exhibits shewing Acquired Diseases.

Diagrams shewing the result of adenoids, lack of care of teeth, tuberculosis, etc., were on show and were explained to nurses, dais, medical students and other medical workers to whom alone entrance was permitted.

Pathological specimens showing abortions and deformed pelvis were also shewn, some specimens being lent by the Lahore Medical College, others by the Lady Hardinge Medical College, Delhi.

Lieutenant-Colonel Buchanan, I.M.S., also used this hut for demonstrations on his interesting set of models for shewing the mechanism of parturition. These were very well attended by medical men and women.

This section was open twice daily for a couple of hours, a qualified doctor being in charge at these times to explain the exhibits.

CSL

Report on the work of the Venereal part of the Pathological Section at the Maternity and Infant Welfare Exhibition, Delhi.

This section consisted of two parts; one, posters giving statistical figures of the incidence of venereal diseases in Europe; the other giving an idea of the ravages of congenital syphilis by means of coloured plates. In addition for the medical profession, one day was set apart showing the organisms of syphilis and gonorrhoea under the microscope.

In the afternoon the section was opened to the general public, and talks with the men were done in English and the vernacular, with the object of bringing home to the public the results of venereal disease on children and on adults.

The attendance was large, and much interest was shown especially in the statistics and their explanation. Many hakims confirmed the idea that venereal disease was as prevalent in India as in Europe and even stated that some of the figures were low for this country.

The exhibit was open in the morning for medical women under the direction of Dr. Agnes Scott.

During the afternoons much valuable assistance was rendered by Indian gentlemen who were of great assistance in popularizing the section and explaining the exhibits in the vernacular.

MEDALS AND AWARDS EXHIBIT.

Here were displayed the numerous articles and models entered for the various prizes and awards offered in connection with the Exhibition. Many were novel and ingenious, and were inspected and criticised by an interested audience.

CSL

Considering the novelty of such competitions the results were very promising.

SECRETARY'S AND ENQUIRY OFFICE.

This office endeavoured to cope with the manifold needs of its visitors. Had an Information Bureau been run in addition, it would have served a useful purpose, for many visitors from a distance wished to enquire about and to discuss Maternity and Child Welfare movements in different parts of the country and deserved quiet and attention which it was not always possible to give them, owing to the numerous wants of other enquirers, who were searching for lost articles, wandering children, etc.

LEAFLETS AND PAMPHLETS ISSUED BY THE MATERNITY AND CHILD WELFARE EXHIBITION.

Ante-natal Hygiene.

Pregnancy is a natural state but owing to the conditions of modern life it tends to border on disease. The more artificial the conditions of life, the truer does this become. It is necessary therefore for the expectant woman to live as far as possible in the most hygienic way during pregnancy. If a woman's ordinary life be healthy, there is no need for any departure from it unless it be in the direction of a more strict moderation.

Exercise.—Labour is a great muscular feat and must be prepared for by *regular* exercise. That is one reason why working women pass through labour with so much less trouble than women in luxurious surroundings. The more violent forms of exercise should be avoided as a general rule. Excessive *fatigue* is undesirable either of

CSL

the body or the mind, and all strains or shocks, either muscular or mental, must be guarded against.

In the second half of pregnancy, *i.e.*, from the fifth month onwards, long journeys by railways or long drives over rough roads are to be avoided. Particular care should be taken at the times corresponding to the suppressed menstrual period.

Diet.—This should be plentiful, nourishing and simple. Overfeeding should be discouraged and the expectant mother should not be encouraged to take 'extras' between meals. Milk or other high digestible foods may be substituted for the more highly spiced and indigestible foods. Soups are of no value as 'extras.' Excess of meat and nitrogenous foods as peas, beans, strong coffee, etc., are harmful. Fruit and vegetables are useful in helping to obviate constipation, but Popai must be avoided.

Plenty of water must be taken between meals to wash out any accumulating poisons.

Bowels.—Constipation must be strictly avoided, strong purgatives are risky and only the milder laxatives or the drug that the mother is in the habit of using should be taken. A daily motion should be secured.

Bathing.—The regular daily bath or baths need not be interfered with but bathing in the open and in a draught should not be continued. The bath should not be very hot or very cold. Vaginal douches are not necessary nor sitz baths.

Marital Intercourse.—This should be interdicted at the times corresponding to the menstrual periods and during the later months. At other times the strictest moderation should be served.

Clothing.—It should be the aim in regard to clothing during pregnancy to avoid pressure on the breasts and any constriction at the waist or round the lower limbs.

Breasts.—In the later months the nipples should be gently drawn out by the fingers so that in shape they may become adapted for nursing. The skin may with advantage be slightly hardened by frequent bathing with equal parts of Eau de Colonge and water or 50 per cent. spirit and water and some boracic acid crystals. If the breasts are heavy and pendulous they should be supported by a bandage or 'angia' (breast support worn by Muhammadan ladies).

Teeth.—During pregnancy these are apt to decay rapidly and must be seen to immediately any discomfort is noticed as the digestion is soon affected. Also the teeth should be kept scrupulously clean. Pus readily collects between the teeth and if encouraged to remain there the gums also get full of pus and the mother with constant swallowing of the pus ruins her constitution as well as that of the child to come.

Maternity Talks to Mothers.

Talk No. 1.

LABOUR.

Many Indian mothers and infants lose their lives at the time of child birth. A very large number of these deaths might be prevented if the indigenous dais or midwives who attend Indian women at their confinements could be taught proper methods in their work.

Women of both rich and poor families are treated by dais who in their ignorance persist in carrying out their traditional methods of treatment, and thus inflict much unnecessary suffering on those who seek their aid.

Models of rooms set apart for a confinement in a poor and in a rich house.

(1) A room in a well-to-do Mahomedan house, an ordinary untrained dai is in attendance. Neither she nor the mother have made any preparations for the case. The rags, etc., to be used lie on the floor under the bed. The dai has her fingers covered with rings, and her wrists with silver and glass bangles ; her clothes are dirty. On a ledge lies the old knife and a piece of string with which the baby's cord will be cut and tied.

In such dirty surroundings lie the germs or small organisms which cause disease, these get introduced into the patient's body by the unwashed hands of the dai and cause fever and inflammation, resulting in death or ill-health of the mother.

The baby suffers from inflammation and often suppuration of the navel on account of the disease germs introduced by the dirty knife and string.

The same prepared by a trained dai.

(2) The same room prepared by a trained dai. She has advised the patient beforehand, and there are little garments ready for the new baby, clean rags, hot water, etc., in readiness. The dai has her box and has prepared everything, on an empty charpoy. She uses nail brush and soap for her hands and her rings and bangles have been removed.

She has advised her patient to buy an accouchement outfit, her scissors are sterilised and in a bowl of lotion with the string for the baby's cord.

Room in a Chamar house with an untrained dai.

(3) A room in a Chamar house with an untrained dai. Everything is dirty no preparations have been made, the mud floor is covered with dust, cow dung cakes are in one corner. There is an old piece of tin to cut the cord and a piece of the mother's hair string to tie it.

The same with a trained dai.

(4) The same house but a trained dai who knows how to make the best of what she finds in the patient's house. She has tidied up the room, put on water to boil outside the door and got everything ready for the case. Her box and bowls, etc., are on a piri and covered, her patient and the bed are as clean as she can make them with what she has at hand.

Models of Maternity Homes in large cities.

Large cities like Bombay have special homes where poor women can go and be taken care of by trained dais at the time of their confinement.

Model labour rooms and lying-in ward in a Hospital.

If a labour case is difficult a doctor should at once be called in or the woman should be taken to the special Maternity Ward of a hospital, where she will receive the special attention she requires.

Talk No. 2.

THE IMPORTANCE OF CLEANLINESS.

What is Dirt?

Dirt is full of very very small germs. Insects so small that they cannot be seen by the naked eye. We need a magnifying glass to be able to see them. Here

CSL

you see pictures of what they look like under a microscope.

Picture of Healthy Blood.

You will notice healthy blood is free from these small organisms, that is why people with healthy blood keep good health and are free from infection (sepsis).

Picture of blood containing bacteria. Culture tubes showing bacteria grown from inside of rings on untrained dai's hand.

Untrained dais do not wash their hands before handling their patients, neither do they remove their rings and bangles so that the disease-producing germs present in dirt are carried into the patient's body and there cause infection (sepsis) which results in fever and inflammation.

Model of placenta and cord. Picture of untrained dai. Implements used by untrained dai.

Just after confinement there are open blood vessels and the germs are carried directly into the mother's body by the dirt on the dai's hands or by dirty oil, dirty plugs of wool, dirty pads, old knives, dirty thread.

Picture of trained dai. "Ritual of handwashing."

A normal labour should be free from infection (sepsis) and therefore from fever and inflammation but this result can only be obtained if every article used for the patient is perfectly free from dirt, so that it cannot carry into the patient's body the germs which produce disease.

Outfit for trained dai.

Therefore the trained dai is very careful to remove her rings and bracelets and wash her hands carefully and she keeps an outfit ready at hand for use when called to a confinement, which contains bowls for lotion, clean swabs and pads for mother and infant, clean scissors to cut the cord and clean thread with which to tie it.

Talk No. 3.

THE CARE OF THE INFANT AT THE TIME OF BIRTH AND THE FEEDING OF THE INFANT FOR THE FIRST THREE DAYS AFTER BIRTH.

Methods of untrained dai. Specimens obtained from actual cases.

Untrained dais use dirty articles for cutting and tying the cord and the dirt which is full of germs cause infection (sepsis) and thus illness to both mother and infant.

Here you see actual articles which have been used by untrained dais.

For cutting the cord an old knife, pieces of tin, pottery, etc., and for tying the cord dirty strings.

Methods of trained dais.

The trained dai keeps clean scissors ready by her in a bowl of lotion for the time when the cord has to be cut, clean string for tying the cord, clean rags ready in clean boiled water for cleaning the baby's mouth and eyes. (Boiled water is used because when water is boiled the germs in it are destroyed by heat.)

Thus the body is kept healthy and free from sepsis and disease.

Methods in a Maternity Home. Baby's bath, baby's clothes, baby's cradle, changing table, folding screen.

In special Maternity Hospitals it is possible to do more for baby's comfort than in the homes of poor people.

Here are shown what careful preparations are made by trained nurses for baby's bath and for changing baby's clothes.

The feeding of the infant for the first three days after birth.

Nature provides suitable material for baby in the mother's breast. The baby should be put to the breast from the first day of birth, even though at first there is no proper flow of milk, yet there is a very thin fluid present called colostrum, which is specially suited for the child. It is not thick and heavy like milk and does not form clots in the child's stomach. It also acts as a purgative. At the same time by putting the child to the mother's breast, the nerves of her own body are stimulated and so the uterus contracts better, and she recovers her health more quickly.

Substitutes for human Milk in first three days.

If the mother's breasts do not satisfy her baby then it may be given a few spoonfuls of water boiled and cooled, and for feeding, a clean cup and spoon should be used, and thoroughly washed after each feed.

Exhibit of articles in Indian houses.

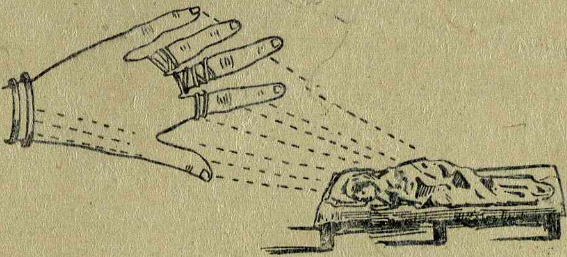
Here you see articles actually used in Indian homes. Substances like " guttae " and sherbert are not suitable for a young infant's stomach and early set up infection (sepsis) which leads to digestive troubles.

Unsuitable and dirty feeding vessels also introduce germs into the child's mouth, and then we get diarrhœa and infantile disorders following. If proper care is taken with regular and suitable feeding the child should remain healthy, happy and contented.

CSL

Victoria Memorial Scholarship Fund.

ADVICE TO DAIS.



What does this picture represent ?

It represents a healthy young woman, the mother of a family, about to be confined and death is creeping towards her in the shape of the **Dai's hand,** unwashed, covered with rings and bangles and containing millions and millions of germs on its surface.

These germs bring puerperal fever.

Puerperal fever leads to death

or

to long continued illness

or

to permanent sterility.

The germs of puerperal fever enter a woman's body by means of the dai's fingers or by means of unpurified medicine, which she pushes up the passages. They pass into the blood and set up fever and many other symptoms. They multiply rapidly. Once in the blood medicines cannot reach them and that is why puerperal fever is such a terrible disease.

These germs leave the woman's body in her discharges; hence they get on the fingers of the dai who attends to her and stick about her nails and her rings and her bangles; when she examines a healthy woman a few days later the germs enter that woman's body and cause puerperal fever.

Now let every dai ponder over and reply to the following very important question :—

Is it not worth while taking some precautions to prevent this awful disease, even if it only occurs in one in fifty of your patients?

What precautions should be taken?

1. Take off rings and bangles while at work.

2. Don't touch the mother's passages until you have thoroughly washed your hands and if possible soaked them in antiseptic lotion.

3. After you have attended a case of puerperal fever do not go near another pregnant woman until you have bathed and washed your head, your clothes have been washed and boiled, your hands soaked in antiseptic lotion.

You indigenous dais of India have a long record behind you of work handed down from mother to daughter, from mother-in-law to daughter-in-law. You should not now stand aside and let others take the work which belongs to your caste. Rather come forward, learn all you can, let it be seen that you too can take in new ideas and can combine successfully the experience of past ages with the practical cleanliness which modern science shows is needed for the safety of lying-in women.

GSL

ADVICE TO PARENTS.

What can we do for our children ?

You can start them in the battle of life strong in body, and sound in mind. How can you do this ?

The mother must begin before birth and must keep her own health good because upon this the health of the baby depends. She must eat good food, breathe fresh air and keep her mind and body active. She must prepare carefully for the confinement—surely such an important event is worthy of thought and pains. She must select a room which is both light and airy—she must have it cleaned thoroughly—she must have all unnecessary furniture and clothing removed—she must prepare clean clothing and bedding—she must arrange that there is soap, antiseptic lotion, clean cloth and a basin for the dai, she must prepare clothing and a little cot for the baby.

A convenient way of preparing for a confinement is to buy an accouchement outfit which contains all that a mother need have at the time of childbirth.

When the baby is born she must give it nothing but the milk of her bre

This is the food prepared by God and surely it is better than the food prepared by man which leads to dyspepsia and diarrhœa.

Keep baby from the beginning in fresh air. Let him sleep with his face uncovered and protect from flies and mosquitoes.

Watch baby carefully and notice at once when he begins to suck less or to be fretful and feverish—shew him to a doctor; disease can be easily checked in the early stages but not at all in the later. Weigh baby regularly in order that you may see if he is increasing in weight as a healthy baby should.

Begin to wean him at 8 months and complete it at 10 months. Give him plenty of cows' milk, but make sure that the milk is fresh and clean. Never give him any food or drink upon which flies have been sitting.

It is the duty of the father to make it possible for his wife to carry out these instructions. He should take a personal interest in the health and welfare of his wife and babies and he will be rewarded by having fine and healthy offspring.

ADVICE TO THOSE ABOUT TO COMMENCE THE TRAINING OF DAIS.

Country dais are illiterate. Many of them are old and slow of understanding. They cannot learn much, but they can all learn something. What should that something be ?

Don't let it be Latin names or the mechanism of delivery.

Let it be—

How to wash the hands.
What to prepare for child birth.
How to deliver a woman in a cleanly way.
How to care for a little baby.

Don't expect too much and so end in getting nothing. Don't confuse them with knowledge which they cannot assimilate.

Observe the following rules :—

1. **Teach practically.**
2. **Watch your class. Select the best for further training.**
3. **Never let go. Provide them with all necessary requisites and supervise their work.**
4. **Above all, exercise tact and patience.**

ADVICE TO MUNICIPAL COMMITTEES.

GSL

With the members of Indian Municipal Committees lies the great task of improving the Maternity conditions of India and reducing the terrible Infant Mortality which is higher than in nearly any other country in the world.

A frequent cause of the death of the baby is the death of the mother from puerperal fever. This disease also leads to much ill-health and subsequent sterility among women. The germs which cause the disease are carried by the unwashed hands of the dai who has attended a case to the next healthy woman she attends. Cleanliness and the use of an antiseptic lotion during labour will prevent this.

How can improvement be effected ?

1. Register the dais.

2. Engage a lady Health Visitor.

3. Give her the names of houses where babies have been born and let her visit and advise the mother.

4. Summon the dais to attend classes of instruction at her rooms.

5. Have a set of simple rules drawn up as follows :—

Municipal Dais—

(1) must carry the prescribed outfit to each case they attend.

(2) must wash their hands in soap and water and soak in antiseptic lotion before examining a case.

(3) must report any difficulty before, during or after labour to the lady Health Visitor.

(4) must not attend other labour cases while attending puerperal fever.

GSL

(5) when attendance on a case of puerperal fever ceases must bathe, wash and boil their clothes and scrub their hands and nails with lotion provided by the Health Officer.

6. Provide a Municipal Badge for registered Dais.

7. Remove from the Register either temporarily or permanently the name of any Dai who persistently disregards these rules.

8. Make the Health Visitor's work a success by using your personal influence in every way possible, both in your official and private capacity, to help on her work in the community.

WORK OF MIDWIFE SUPERVISORS.

In this little pamphlet we need not go into the question of the shortcomings of Indian dais. This has already been emphasised in other sections of the Exhibition.

India will not give up her class of practising dais; therefore the problem for us is, how can they be improved and brought more into line with modern teaching in midwifery? The solution of the problem lies in the employment of Midwife Supervisors.

1. What is a Midwife Supervisor? She is a trained midwife and preferably one who has practised midwifery herself. She must have special knowledge of hygiene and infant welfare and must have had a training in some centre where work is successfully carried on among indigenous dais. This last is very essential, because indigenous dais are independent people, and if in the beginning the wrong note is struck in dealing with them no amount of trouble or pains or energy will lead to success.

2. Under whom does the Midwife Supervisor work? She is employed by the Municipality in the Health De-

CSL

partment or in some cases by a special Infant Welfare Committee. Her salary should not be less than Rs. 100 per mensem, and in large centres considerably more. Her work requires exceptional qualities of patience and self-control, and its importance both in immediate and far-reaching results is perhaps of greater moment to the welfare of the community than that of any other officer employed. She is allowed no private practice. Whenever a Midwife Supervisor is allowed private practice, she at once becomes a rival to the dais to be feared and hated in proportion to the qualities she possesses leading to success. She should not be allowed to attend any lying-in case unless a dai has already been called in. She is a *teacher*, not an *attendant on the sick.*

How does the Midwife Supervisor get to work? The best way is through the babies. Let the Municipality give her the addresses of all houses where babies have been born and let her visit these houses, chat with the mother and advise regarding the care of the baby. She will sometimes find the dai there and will see something of her work.

Let the Municipality also form a list of all dais practising in the city. The city if sufficiently large to require it should be divided into circles and the dais of each circle asked to attend the class room on one day in the week. A small reward, say 4 annas for each attendance, should be given to each.

The dais should be promised a reward for each case of labour to which they call the Midwife Supervisor, say Re. 1, if she arrives before the baby is born, and 8 annas if she arrives after. This gives the Midwife Supervisor the opportunity of showing the dais how to carry out

MINISTRY OF CULTURE · GOVERNMENT OF INDIA

GSL

practically in the homes the advice she has given them in the class room.

The Midwife Supervisor should have a small fund in hand with which to provide outfits for the dais of the necessaries for cleanly practice and also to provide occasional treats for them. A small outlay in this way will be largely repaid by the increased affection with which she is regarded.

She should also have a poor fund to give clothing, milk, etc., to poor women.

4. What will be the result ?

The Midwife Supervisor will soon find that a certain number of the dais are incapable of improvement, but even then by keeping in touch with them she can do much to minimise the evil consequences of their work. Others she will find capable of some improvement and some of much improvement. These last are chiefly the younger women and it should be her aim to encourage these in every way, to try to get them more practice and to induce other intelligent young women to take up the work.

After she has established her position and gained influence she should lay down certain simple rules to be followed in the lying-in room and as years pass she will be able to add to these rules. But nothing is gained by undue haste.

She should lose no opportunity of talking and lecturing on the importance of cleanliness and the dangers of sepsis ; because marked success will only attend her work when the people understand why it is needed.

When that time comes the Municipality or even the Provincial Government itself will lay down rules to be

CSL

followed by dais in the conduct of labour and will exact penalties for their non-observance.

“HOW TRAINING, REGISTRATION AND SUPERVISION OF DAIS MAY BE CARRIED OUT.”

In England and Wales it was found that much harm was being done to the mother and her baby through midwifery being practised by unskilled persons who were both untrained and ignorant. This was the reason which led to the passing of the Midwives Act of 1902 and its amendment of 1918, followed by the establishment of the Central Midwives Board. This law was made to secure the better training of midwives and to regulate their practice. It lays down the following rules :—

No woman is to practise midwifery for gain unless she is duly certified and no woman can be thus certified until she has complied with the regulations of training laid down by the Act, nor may any woman thus certified employ an uncertified woman as her substitute. Before a midwife can obtain a certificate she must have undergone a proper course of training at a recognised hospital.

It is the duty of the Central Midwives Board to regulate the course of training, the examination and registration of midwives, so that only properly qualified women have their names registered as midwives, and it is also the duty of the Board to supervise the subsequent work of such registered midwives, to keep a roll of every midwife who had been duly certified under the Act, and in case of misconduct and her subsequent neglect of duty to remove or suspend her name from the register.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

In order to secure the proper supervision of the registered midwife a local supervising authority is appointed for each district, whose duty it is to report to the Central Midwives Board any misconduct on the part of the midwives in that area.

Heavy penalties are imposed on women who attempt to procure a certificate of registration by false representations.

In the case of any difficulty during a confinement it is the duty of the certified midwife to call in the aid of a registered medical practitioner and report the case to the local supervising authority.

This brief summary shows that the Central Midwives Board in England and Wales has been instituted to protect the life of mother and babe at the time of labour so that skilled aid is provided for both woman and child, and to protect them from all harmful practices.

The woman who has received the certificate of the Midwives Central Board must be of good moral character, and have received a good practical course of instruction in midwifery. Such a trained midwife knows how to advise the mother in the care of her health before the birth of her child ; such a woman has learnt how to keep her own person scrupulously clean and how to procure cleanliness in her patient.

The trained midwife carries an outfit containing all the necessaries for a confinement, and her outfit has to be properly looked after and is open to the inspection of the supervising authority under whom she works.

In case of illness on the part of either mother or child or of any abnormality at the time of labour, the certificated midwife is obliged to see that trained medical help is procured and it is her duty to report all deaths and still-births to the local supervising authority.

The certificated midwife is not allowed to attend cases of infectious disease, lest she carry the germs of infection and cause the illness of her midwifery patient.

Should a certificated midwife fail to fulfil the above conditions, she may be suspended from her practice by the local supervising authority.

India.—In certain parts of India, such as Bengal and the Punjab, sanitary authorities are beginning to consider the question of registration of the practising midwife or indigenous *dai.* It is well known that much harm is done in India to both mother and infant by the ignorance of *dais* and it is felt that if registration of *dais* could be enforced, the training and supervision of the *dais* would follow and much benefit would result in the well-being of the Indian babe and its mother at the time of confinement, and in their subsequent health.

Infant Welfare.

ARTIFICIAL FEEDING AND CARE OF THE BOTTLE.

If the mother for any reason, such as serious illness, cannot feed the baby on her own milk, he must be given some other kind of food. He may be suckled by another woman, or be given the milk of cows or goats. Or we may give him dried milk in the form of a powder, or condensed milk.

If the mother cannot feed the child herself, the milk of a wet nurse is the best substitute. We must make sure that the wet nurse is quite healthy, and in addition her own child must be about the same age as the child she is to suckle, or else her milk will not be suited to him.

CSL

If we cannot get a wet nurse for the baby, then the best thing is to give him the milk of cows or goats. We cannot, however, give the baby the milk of cows or goats just as it is. Cows' milk is meant for the calf and not for the baby, and to make it suitable for a baby some sugar and some water must be added. No two babies require exactly the same milk, so it is best for the mother to get advice from a doctor or an experienced nurse who will tell her how much water and sugar she must add to the milk to make it right. The doctor will also inform her what quantity of milk she must give.

When a mother feeds her baby on breast milk, the milk gradually changes in quality and the child drinks more as he grows older. In the same way we must gradually alter the cows' or goats' milk by adding less water to the same amount of milk. The child must also be given increased quantities of this less diluted milk. The doctor will be able to instruct the mother if necessary when these changes should be made.

As milk is very seldom quite clean we have to boil the milk before we give it to the baby. By doing so we kill the germs which are found in dirty milk, and so it cannot do any harm to the baby. In boiling the milk, however, we destroy certain substances in it which are important for the baby's health. To replace them we should give the baby some fruit juice daily. He may have orange juice or grape juice. He should have only a few drops at first, and the quantity should be increased as he grows older. The juice should be strained through muslin and mixed with twice the quantity of plain boiled water, (which has been allowed to cool). A doctor's advice may be taken on this matter also.

CSL

The baby should be fed after every three hours in the day, and not at all during the night. For example, he may be fed at 6 and 9 A.M., 12 noon, and 3, 7, and 10 P.M. He will soon become accustomed to sleep through the night without food. If he wakes and cries he may be turned on to his other side, or be dried if wet.

The baby must be fed without fail when the feeding time comes. If he is asleep he should be waked to have his milk. He should not be given any milk between the feeding times, because this causes him to have indigestion and he is often sick. After having been fed he should be placed in his cot to sleep and not played with or shaken about.

If for any reason pure cows' milk cannot be obtained, the baby must be fed on dried milk, condensed milk, or some other specially prepared infants' food. If this has to be done, it is best for the mother to ask a doctor or experienced nurse about the matter. The doctor will advise her as to which kind of food will be best for her baby and tell her how to prepare it.

Any food which is not the mother's milk or that of a wet nurse must be given to the baby by means of a bottle. It is absolutely necessary that the bottle should be kept perfectly clean. If this is not done the baby will suffer from sickness and diarrhœa. The bottle should be washed out immediately after use with cold water, and then with hot water and soda. The bottle should be boiled in water once a day. The bottle should have a large mouth.

The teat is also dangerous unless kept quite clean. It should be washed inside and out immediately after the milk has been drunk, then dried with a clean cloth and put away in a covered vessel. The teat should have boiling water poured over it once every day. The hole in

GSL

the teat should not be large, as if it is, the baby drinks his milk too quickly and then gets a pain in the stomach. As the hole gets larger very quickly, new teats must be frequently bought and the old teats thrown away.

The bottle must be held *all* the time the baby is sucking. The milk must be given warm to the baby. Frequently the baby refuses the milk, not because he is not hungry, but because it is not warm enough.

BABY'S BATH AND BED.

Every baby should have a daily bath. The baby's skin is soft and delicate, and if he is not washed daily, it quickly becomes sore.

The bath water should be warm in the cold weather. We must be careful that the water is neither too hot nor too cold. The baby's skin is much more tender than the adult's, but water that is pleasantly warm to the mother's elbow will be about right for the child.

In cold weather the bath should be given in a warm place where there will be no draught. Everything should be placed ready, so that the bath can be given and the baby dressed again quickly. A piece of flannel should be used for soaping the baby. The mother should hold the baby in her lap while soaping him, and then place him in the bath, and remove the soap from the skin. Generally the baby enjoys his bath, and may be allowed to stay in it for a minute or two. He is then taken out and dried in his mother's lap. The drying must be very carefully done with a soft towel. It is necessary to see that all the folds of the skin are thoroughly dry, for example, inside and behind the ears, under the arms, in the groin, etc., otherwise the skin may become sore. The clothes are then put on quickly.

If the eyes are at all sticky or watery they should be bathed with boric lotion two or three times a day. The lotion may easily be got from a chemist or a hospital. If the eyes do not become clean after such bathing the baby should be shown to a doctor.

If the baby is delicate or premature he should not be given a bath with water, but should be rubbed with warm sweet oil. This is also valuable for babies who are thin. In that case the oil may be applied after the ordinary bath.

The baby is usually fed immediately after bathing him. He should never be fed immediately before the bath. After feeding he should be placed in his cot to sleep.

Every baby should have his own cot to sleep in. It is common for the baby to sleep with his mother, but this is not a good thing. He does not get as much fresh air as if he slept alone, his limbs cannot move as freely, and there is danger of his being injured.

A little bed can be made for the baby by a basket man very cheaply. The bed should not be made so that it swings or rocks. If the bed is rocked in order to get the baby to sleep, he will never go to sleep without rocking. This occupies the time of the mother unnecessarily as well as being bad for the baby.

The bed requires a small mattress which is stuffed with cotton. A small piece of macintosh sheeting should be laid over the mattress in order to prevent it becoming wet. Over the macintosh should be a sheet of some washable material such as dosooti or sheeting. The warm coverings which are needed over the baby in cold weather should be light as well as warm. Woollen material is better than cotton.

CSL

A mosquito net is required when there are mosquitoes. It also protects the baby from flies. The mosquito net must be tucked carefully under the mattress and be without holes or else it is useless. It is well to remember, however, that in addition to protecting the baby in this way from flies and mosquitoes, we should also prevent them from breeding. This can be done largely by perfect cleanliness, and by not allowing water to collect anywhere, either on the ground or in old tins or vessels which are frequently left lying about. Flies are attracted where there is dirt, and mosquitoes where there is water.

If the baby is ill or delicate, the bed may be warmed with a hot bottle or a heated brick. This should be most carefully wrapped up in thick cloth to prevent the baby from being burned.

Babies should never be given comforters to suck to send them to sleep. Nor should they be given opium for the same purpose. Both practices are very bad for the baby.

WEIGHING OF BABIES.

All babies should be weighed, because this is the best method of knowing that they are making progress.

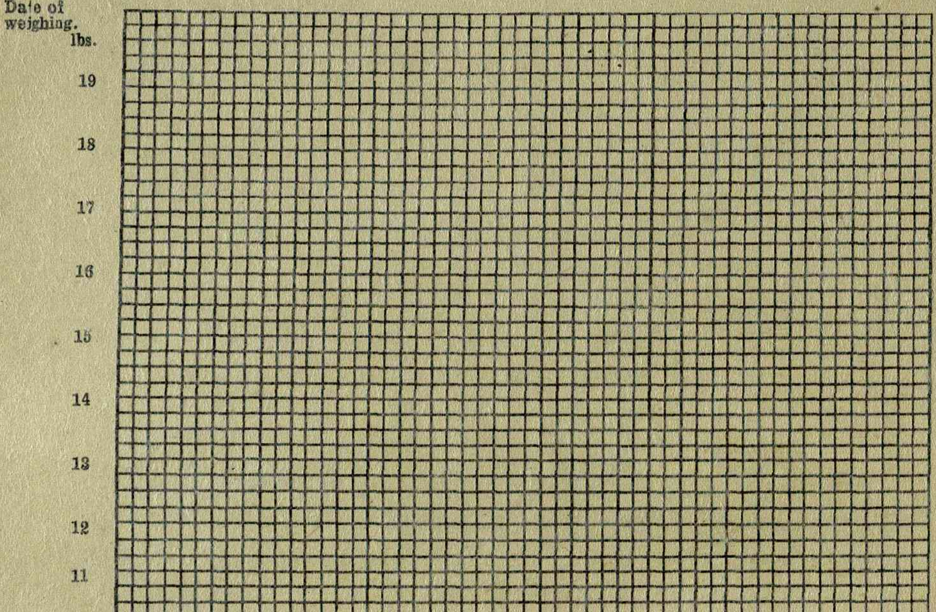
If the baby does not increase steadily in weight, something must be wrong; either he is not getting sufficient food, or not absorbing his food properly, or there is some abnormal condition present.

A baby may look well, and yet not increase in weight. It is important to know this, and we must not depend on looks only. If we find the baby is not gaining in weight we can try to find out the cause.

In other cases a baby may appear to have a small appetite, and thus cause the mother to worry about him. But if

BABY'S WEIGHT CHART

Name ______________________ *Date of birth* ______________________



Each square represents 4 oz. and one week. A baby should increase 5-6 oz. weekly in the first six months, then more slowly.

CSL

we find he gains steadily in weight, we shall know that the quantity he is getting is sufficient for his needs. So in this case weighing will save the mother from needless worry.

We can tell by weighing when the mother's milk is no longer sufficient for the baby, and so be able to give him other food when he needs it.

Weighing can be done at home if there are scales in the house. Otherwise the baby can be taken to the Baby Welcome, or to a Hospital to be weighed, or the scales can be borrowed from a shop near by.

A baby at birth usually weighs about 3 seers or a little more. He should increase by 2 to 3 chataks in weight every week for the first five or six months of his life, and after that he increases more slowly. It is better for the baby to increase steadily in weight, for example, 3 chataks weekly, than increase irregularly, for example, gaining 6 chataks one week, and 2 the next week. All babies do not weigh the same ; the important thing is that the weight of each should steadily increase. To discover whether it is doing so, a record should be kept of the weekly weighings.

Welfare Work in Mills and Factories.

THE MODEL CRÊCHE.

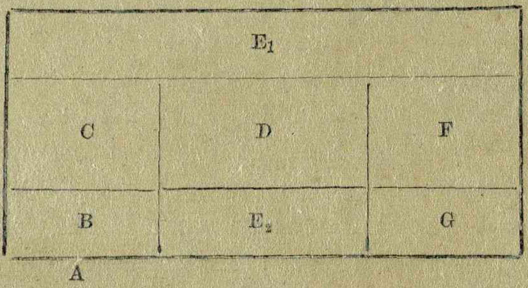
A crêche is a place where mothers who are obliged to work, can leave their babies in the morning and can fetch them away in the evening or whenever their work is finished, the babies having in the meantime been well cared for, fed and clothed during the day.

If crêches could be instituted in all places where women do daily work it would lead to a great saving in infant life.

CSL

Too often the babies of such women lie cold and hungry, bitten by flies and mosquitoes and stories are even told of them being carried off by animals, or in the cotton districts smothered by bales of cotton, when they topple over on the forgotten baby.

A crêche under a well qualified nurse offers an excellent opportunity of training young women of the dai class in the proper care of babies.



This model crêche is of a very simple nature and is intended to accommodate 12 babies and to be worked by a nurse and two dais. The women before going to work assemble at A and hand their babies to dai No. 1 who takes them to the bathroom (B) removes their clothes and hands them to the nurse who bathes them and dresses them in crêche clothes. Dai No. 2 takes them to the play verandah (E_1 is summer, E_2 is winter).

If the baby is under a year the mother gets leave and comes every 3 or 4 hours to feed him. If he is over a year she need not return until her work is over.

At 7 the elder babies have their breakfast of suji or dallia and milk. Care is taken to wash their hands and faces before and after each meal. They now play in the verandah or garden. The nurse having finished her work inside sits near. At times she gathers the elder children together, shows them pictures, gives them little singing

GSL

lessons, teaches them to model in sand or build houses with bricks and tells them simple stories. Nothing difficult must be taught.

At 11 dinner is given consisting of dal or vegetable and rice followed by a little fruit either raw or cooked. The younger babies are given milk.

At 12 the smaller babies are put into their cots and the older children are laid down on their mats in the sleeping room (D). All sleep till 3.

At 3 the children return to the verandah where tea is given consisting of milk and chapati and a small quantity of sweets.

Soon after the mothers begin to return, the babies are dressed in their home clothes (which have been washed by the dhobi), and handed over with the injunction that they should get a simple supper at 7 o'clock and be put to bed immediately after.

F shows a room in which the mothers are often gathered together for little talks on baby care. The talks may take place out of doors but magic lantern pictures, materials for sewing class, etc., are kept here.

G is the surgery where First Aid is done and where the doctor who visits the crêche once a week inspects and weighs each child.

Food.

DIET FOR A CHILD 1—2 YEARS OLD.

Four feeds in the 24 hours are required—two from the milk cup and two meals. The baby should be trained to take its food from a cup or spoon.

Sample arrangement of diet—

6-0 A.M. 7 to 8 ounces (14-16 tablespoonfuls) of milk mixed with 1 ounce of thick gruel. (Prepare the gruel by adding 3 tablespoonfuls of barley flour to 16 ounces of water, add a pinch of salt and boil for 40 minutes. Make up with water to original bulk.)

9-0 A.M. Orange or other fruit juices, diluted if necessary with a small amount of water.

10-0 A.M. A well-cooked cereal such as cornmeal, rice. Sweeten with sugar and add a little milk or butter.

To drink, give 6 ounces of milk.

2-0 P.M. Broth. This may be made from any green or other vegetables boiled to a pulp and then thickened with well-cooked and pulped rice or bread crumbs, a little ghi and milk being added.

A baked potato with ghi and salt.

Well-cooked fruit, pulped—in particular—apple.

6-0 P.M. Repeat the first meal of the day (6-0 A.M.).

N.B.—Where caste rules permit, broths may also be made from mutton. A lightly boiled egg with chapati or biscuits is also good for the baby.

DIET FOR A CHILD 2—6 YEARS OLD.

A small cup of milk on awakening.

First meal :—10—10-30 a.m.

Cereals :—*e.g.*, cornmeal, rice, suji, slightly sweetened, cooked with milk.

Chapati or toasted rice-biscuit.

Honey or stewed fruit.

A cup of milk or cocoa.

[A soft-boiled egg—where caste rules allow.]

Next meal :—3 p.m.

Broth, made from meat or peas, dal, or vegetables, thickened with chapati or cereals (*e.g.*, rice, chana).

2 tablespoonfuls of well-cooked vegetable such as spinach, green peas, cauliflower, cabbage, carrots, with a little ghi added.

[Well-cooked white fish or chicken. (If chicken, only 3 times a week.) If red meat, chop well and give only once or twice a week where caste rules allow.]

Cooked fruit, sago or rice pudding, well toasted lady fingers, or biscuits and milk.

An orange, if possible.

Last meal :—6-0—6-30 p.m.

Dhal, rice with milk, or toast with milk, or chapati or double roti with honey.

Baked fruit.

Cup of milk.

A baked potato 2-3 times a week may be given. One half of a medium sized potato in amount after the child has learned to eat all green vegetables. Cereals should be thoroughly cooked. Suji requires a longer time than rice. All vegetables should be cooked in salted water but do not add anything else to the water.

The child should drink freely of water during the day. It is important that he should have at some time of the day some scraped, raw or ripe fruit. This diet can be increased in amount but not much in variety under six years of age.

To chew and to swallow without drinking is essential to good teeth and good digestion. Teach your child to chew.

RULES FOR A CHILD OVER 6 YEARS OF AGE.

Start good habits for your child to-day. The kind of food he eats now determines to a considerable extent his fitness as a man.

CSL

(1) **Have regular meal times** :—Children should eat at regularly appointed hours and never between their meal hours unless very hungry or ordered to by a doctor. If your child must eat between the ordinary meals owing to hunger, give him wholesome food like chapati or biscuit, but never *mitthai*, nuts or fruit.

(2) **Give plenty of water** :—Water will often satisfy a craving which many mistake for hunger. Water should not be drunk to wash down food during a meal, but should be taken afterwards.

(3) **Children often have to be taught, to like foods which are good for them** :—Be patient but firm in teaching a child to like a food he has not taken before. Give a small amount at first and repeat it regularly until the child learns to like it.

(4) **Do not force children to eat when not hungry** :—Light feeding will do no harm for a few days, but if the appetite does not return, take your child to the doctor.

(5) **Allow plenty of time for eating** :—If food is thoroughly chewed, it will be digested quicker and indigestion and colic will be avoided.

(6) **Dirt is dangerous** :—Children should have clean hands and face while eating. All food should be clean, in particular uncooked food such as fruit. Do not allow flies to settle on any food, particularly in the milk which has been boiled. They bring disease, especially dysentery, cholera, summer diarrhœa and typhoid fevers.

Remember :—

Milk is the best and most important food for growing children. It should still be given to children over 5 years of age. Warm milk is more easily digested than cold.

Rice and dal require careful boiling.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

Green vegetables are very good for children, who should also have cream or ghi.

Meat, when eaten, should only be fish or fowl before the 7th year. One chittak of red meat daily suffices for a child 7—10 years old, and 1½ chittacks when 10—14 years old.

Sugar is not good for young children except in small quantities. Bazar sweets are nearly always dirty and eating these between meals destroys the appetite and causes decay of the teeth.

Broths have little nourishment but can be made very nourishing and appetizing if made from dal or fresh vegetables such as potatoes, spinach, onions, etc., and thickened with rice and milk added.

Condiments, such as chillies, pepper, turmeric, hot curry powders, are not good for children.

Tea and Coffee should never be given to growing children.

WHAT MAKES A CHILD LOSE WEIGHT.

Food :—
  Too little —
    Wrong kind { Tea.
      Fried food.
Eating too fast.
Sleeping too little.
Resting too little.
Stale air—
  Sleeping with head in blanket.
Constipation.
Dirty hands, face, clothes.
Bad teeth.

WHAT MAKES A CHILD GAIN WEIGHT.

Food :—
  Right amount.
  Right kind.
Eating slowly.
Sleeping enough.
Resting one hour after principal meal.
Fresh air—Day and night.
Regular bowels.
Cleanliness.
Good teeth.

SAMPLE MEAL.

7—9 years.

1st Meal.		2nd Meal.		3rd Meal.	
Suji	. 2 ounces.	Carrot	. 1 ounce.	Rice	. $1\frac{1}{2}$ ounces.
Bread	. 2 ,,	Vegetable	. 2 ounces.	Sugar	. $\frac{1}{2}$ ounce.
Butter	. $\frac{1}{2}$ ounce.	Dal	. $1\frac{1}{2}$,,	Bread	. 2 ounces.
Sugar	. $\frac{1}{2}$,,	Rice	. $1\frac{1}{2}$,,	Butter	. $\frac{1}{2}$ ounce.
Milk	. $\frac{1}{2}$ pint.	Bread	. 1 ounce.	Honey	. $\frac{1}{2}$ ounce.
Banana	. 1 ounce.	Water.		Milk	. $\frac{1}{2}$ pint.
Honey	. $\frac{1}{2}$ ounce.				

Home Nursing.

DEMONSTRATION 1.

TO PREPARE A SICK ROOM.

A sick room should be clean, dry and airy, it should be well ventilated and have as little furniture in it as possible. All curtains, hangings and carpets or durries should be removed. The walls and ceiling should then be thoroughly cleaned. Tie a damp jharan over a long brush or stick and go over every inch of ceiling and walls with it, going into all corners and crevices carefully. The floor should then be sprinkled with tea leaves, damp saw dust or damp chopped grass. The dust can then be taken up with a short brush and swept into a tin or piece of paper and burnt.

The dampness prevents the dust flying into the air and keeps the germs contained in the dust inactive. When the ceilings, walls and floor have been swept, the floor (if made of wood or stone) should be well washed over with soap and water. When the room is quite dry the patient's bed can be made up and the sick person be put into it. There should be a small table by the side of the bed—another table for the nurse's use and two or three chairs or stools.

TO KEEP THE SICK ROOM CLEAN.

Every day the floor should be swept as described above so that no dust gets into the air to be swallowed by the patient or nurse, and all the furniture, etc., should be dusted with a damp cloth. The room must be kept sweet by a free entry of fresh air and sunlight, which should enter by the window and door but the patient's bed should not be in a draught.

The ideal ventilation is fresh air *without* draught. The bed should not be put against the wall as it prevents the nurse or attendant getting to both sides of it. No soiled clothes or vessels, etc., should ever be left in a sick room, no food or milk should ever be left standing in a sick room.

If the patient has an infectious disease all bed clothes, drinking vessels, etc., must be placed in disinfectant before they are removed from the room. In these cases the nurse must wash her hands thoroughly and soak them in disinfectant every time after touching the patient and especially before she goes out of the room to take her

CSL

food. If a sick room is kept well ventilated and absolutely clean there is very little risk of infection to nurse or members of the family, and the patient will make a quicker and better recovery from the illness.

DEMONSTRATION 2.

Washing, Changing and Lifting.

TO WASH A PATIENT IN BED.

First of all get everything ready, a bowl of warm water, a piece of flannel, soap and towel. Put them all on the right hand side of the bed, take off all top bed clothes, except one blanket, and place them on a chair.

Then turn the patient over on her side, put an old blanket or a bath towel—which has previously been rolled to half its width—on the bed, the rolled part towards you and next the patient's back, then turn her on to her other side and unroll the blanket or bath towel so that it lies smoothly under the patient.

Remove her nightdress, being careful not to uncover her. Wash first the face, neck and ears and dry carefully.

All patients dislike having their faces washed for them and if a patient is strong enough she should always be allowed to wash and dry her own face and ears.

Wash and dry first one arm and then the other letting the hands remain in the bowl for a few seconds, wash and dry the whole chest and abdomen keeping the blanket elevated in your left hand while you wash with your right, then wash and dry the legs, and lastly the back. After the washing is finished and while the patient is on her side rub the lower part of the back and the shoulders with methylated spirits and then with starch powder to dry the skin and prevent bed sores, remove the blanket from under the patient and put on her nightdress again.

CSL

The nightdress should be changed frequently if possible and should always be well aired and shaken out before being replaced.

To do the hair.

The patient's hair should be divided down the middle of the head, from the forehead to the nape of the neck.

It can then be brushed and combed without difficulty. It should be plaited in two plaits, one on either side of the head just behind ear. Care must be taken that the patient is not made uncomfortable when lying on her side, by hard plaits of hair, and she should be asked if the plait is in a comfortable situation.

To clean the mouth and eyes.

The mouth can be cleaned by tying small pieces of clean rag on sticks or holding a piece of cotton wool or rag in a pair of blunt scissors or forceps, and dipping the rag into a little glycerine and lime juice. A fresh piece of rag must be used each time so that the glycerine and lime juice does not get soiled—go carefully over the tongue, teeth and gums and roof of mouth removing all crusts, and fur from the tongue, care must be taken not to touch the soft palate or back of the throat as it will make the patient sick, then let the patient wash out her mouth with warm water. After the mouth has been cleaned dry the lips carefully. The mouth should be cleaned before food and at least 4 times a day if there is fever. The eyes must be cleaned by bathing them with a little warm boracic lotion and a fresh piece of cotton wool must be used each time it is dipped into the bowl.

The nails of a patient must be kept short and clean.

To prevent bed sores.

Great care must be taken to keep the patient dry and clean and the bed free from moisture and crumbs, etc.

To "take" the pulse.

This needs a good deal of practice. To find out if the pulse is quick or slow place three fingers (the fore, the middle and the third finger) on the radial artery, about half an inch from the outer side of the fore arm at the wrist. At the same time place the thumb under the wrist to support it, the pulse will then be felt beating under the fingers and by the help of a watch (with a second hand) it will be possible to count how many beats there are to a minute. The pulse rate in health varies from 70 to 80. A quick pulse is found in fever, and most diseases increase the pulse rate. The rate of the pulse should be taken at the same time as the temperature and should be written down for the information of the Doctor.

To "take" the respiration.

The respiration or rate of breathing can be ascertained by placing the hand lightly on the patient's chest and counting the number of rises per minute by a watch.

If the patient is nervous it is better to pretend to be taking the pulse and watch the rise and fall of the chest carefully.

Chest complaints cause the respiration to increase and most fevers with high temperatures have also the effect of increasing respiration.

Respiration should be taken when temperature and pulse are written down or charted and should be carefully noted at the same time.

To make a fomentation.

Take a small piece of old flannel or old blanket and fold it into four. It should then be sufficiently large to cover the seat of the pain. Put the folded flannel into

CSL

a towel, twist the 2 ends of the towel and place the middle part in a bowl. Pour boiling water on it and leave for about a minute—wring out very dry and before placing it on the patient give it a good shake as it will keep hot longer—remember that it is a wet and not a hot fomentation which is liable to burn a patient.

The fomentation should then be covered with oil paper and wool and bandaged on.

If turpentine or laudanum is ordered paint very lightly and evenly over the painful part and then apply the hot fomentation. Do not sprinkle turpentine or laudanum on the fomentation as it is then less evenly distributed. Small fomentations require changing every 2 hours—large fomentations every 4 hours.

TO MAKE A LINSEED POULTICE AND A MUSTARD PLASTER.

Get ready a kettle of boiling water, a jug, a bowl, a large flat knife and some crushed linseed, also some old linen on which to spread the poultice. Heat knife, jug and bowl and pour boiling water into jug. Sufficient boiling water should be put into the bowl to make a poultice the required size. Sprinkle the linseed quickly into the water stirring all the time with the knife—when the mixture is thick enough it will leave the sides of the bowl or can be "cut clean" with the knife—spread it half inch thick on to the linen smoothing it with the knife which should be dipped frequently into the jug of boiling water. Leave about ¾ in. clear all round the linen and fold in. It is then ready and can be applied. Care must be taken not to apply it too hot and the heat can be tested by the back of the nurse's hand. The poultice should be covered with wool and secured with a bandage.

CSL

A mustard plaster can be made by mixing 2 parts of mustard and one part of flour with tepid water and spreading the mixture on a piece of old linen or brown paper. It can then be covered with muslin and applied for about 15 minutes. A little vaseline or simple ointment should be applied when the plaster is removed as it is apt to make the skin tender and red. Mustard and linseed poultices can be made in the same way as linseed poultices, but first mix the mustard with tepid water and then mix in with the linseed—1 part of mustard to 3 parts of linseed is a usual proportion. Ointments should be spread evenly on a clean piece of rag and bandaged on.

Liniments should be rubbed on well, as the rubbing relieves pain. Most liniments are poisonous and they should be kept carefully away from children and not left standing with medicines.

THE GIVING OF MEDICINES.

All medicines, pills, etc., should be given very regularly and only the exact dose which has been ordered should be given. All bottles should be well shaken before the mixture is poured out. Before giving a medicine which is disagreeable to the taste let the patient wash out her mouth with a little plain water and immediately after the medicine has been given a little bit of bread or a small piece of lime (lemon) can be given to take away the taste.

Powders should be given in water as they are less disagreeable to take in this way. Castor oil can be given easily if put into a glass in which nimbo juice has been carefully swilled round first.

CSL

DEMONSTRATION 4.

DIET IN SICKNESS.

The food given to sick persons should be nourishing in order to keep up the patients' strength and to prevent wasting.

Nourishment should therefore be given regularly during the day, and also at night. The food given should be light and digestible, because in disease the digestive organs do not do their work properly. Food given at regular hours and in small quantities, will digest better than in large amounts given at irregular intervals.

Usually from 3 to 5 pints of milk are ordered per 24 hours, divided into feeds of ozs. 5 to 8, and given every two or three hours. When feeding the patient raise the head slightly with your left hand and support it firmly, hold the feeding cup with the right hand and allow the patient to drink slowly. When the feed is over remove and wash the cup, as dirty cups left lying about encourage flies. All food kept near a sick room must be covered to protect it from dust and flies, which breed disease. Milk especially absorbs impurities, also drinking water, so both should be kept where the air is fresh, and boiled before use to destroy any germs lurking in them, and then kept in clean boiled vessels.

As fluid food is more digestible than solid food, in sickness patients are usually given only fluids. Milk is a perfect fluid food, for it contains all the elements required for the feeding and building up of the tissues of the body. But it sometimes causes indigestion. This is shown by the patient vomiting after taking milk, or by the presence of curds in the stools. We must therefore make the milk more digestible by diluting it with barley or water, one-third of either to two-thirds of milk. Or by pre-digesting it with one of the preparations sold by chemists for the purpose, and which contain directions for use, for instance Zymine peptonising powder. If milk still disagrees we substitute for it whey and albumen water. These are lighter and more digestible than milk, but less nourishing, so cannot be substituted for a long period.

Whey is made in the following way: Take one pint of fresh unboiled milk at a temperature of 98°, add 1 teaspoonful essence of rennet and leave it undisturbed for $1\frac{1}{2}$ hours till a curd forms; then break it with a fork and strain it, and boil the liquid which is the whey, to destroy the rennet—10-oz. of milk will yield 7-oz. of whey. Another method of making whey is to first boil the milk and add to the pint 2 tea spoons of lemon juice, break up the curd and strain. About 3 to 5 ozs. can be given for a feed.

Albumen water is made by taking the white of an egg, break it across several times with a knife, then add it to about 5 to 10 ozs. of cold water, shake it, add some lemon and sugar to taste, and give the patient 3 to 5 ozs. for a feed.

The sick person may tire of a diet of only milk, so we try to vary it by adding to the milk tea, coffee, cocoa, sago or by giving as a change buttermilk, broths and sweet jellies. These do not contain as much nourishment as milk, but tempt the patient's appetite.

Tea is a slight stimulant, and a cup may be given twice a day if it does not cause indigestion. It should be made with freshly boiled water. The teapot should first be heated with a little boiling water, which is poured off, then 1 tea spoon of dry tea leaves should be placed in the pot, the fresh boiling water poured on, allowed to stand about 2 minutes and then poured out. Tea may also be made with boiling milk instead of water.

CSL

Coffee and cocoa are made in the same way but may be allowed to infuse longer than tea.

Sago is very digestible. About 2 tea spoons to a cup are taken, allowed to soak in cold water for half to one hour, then added to boiling milk and cooked till soft.

Sooji is made in the same way.

Should the patient suffer persistently from diarrhœa water arrowroot given instead of milk gives very good results.

It is made by taking 1 dessert spoon of arrowroot, and mixing it to a smooth paste with cold water. Add this to one pint of boiling water and stir for 2 to 3 minutes. Let it cool and give the patient 4 to 5 ozs. every 2 to 3 hours, adding lemon juice and sugar to taste.

Water is an important addition to a sick diet. It aids digestion by dissolving the food taken, and so aids absorbtion. It carries nourishing material throughout the body and helps to carry out of the body waste matter. In fevers there is an increased waste of tissues of the body, so cold water at frequent intervals should be given to a patient with fever. This will help to reduce the temperature, to flush out the kidneys, and also assist in carrying off the waste products from the alimentary canal. Water may have lemon juice and sugar added to it, and also be given in the form of soda water, rice water or barley water.

To make barley water take two table spoons of pearl barley and soak it in a jug containing one pint of cold water for one hour. Cover it and place it in a saucepan of boiling water. Put the lid on the pan and let it boil till the barley is soft and cooked. A simpler way is to boil the barley and water in the saucepan.

CSL

ALCOHOL.

Alcohol when taken by Parents in excess often leads to—

(1) Epileptic Children.
(2) Feeble-minded Children.

Alcohol when given by Parents to Children—

(1) Acts as a poison.
(2) Does not act as a Food and does not nourish or strengthen the body.
(3) Retards their mental and physical development.
(4) Lessens the resistance of the body by decreasing the activity of the white blood cells.
(5) Lowers the standard of Scholarship.

Therefore don't spend money on Alcohol. Rather spend it on good Food, such as Milk and Ghi.

It is better for Parents to abstain from Alcohol.

LECTURES DELIVERED AT THE MATERNITY AND CHILD WELFARE EXHIBITION.

Lecture on the responsibility of men in matters relating to Maternity.

Read by Dr. A. LANKESTER, M.D.

My subject this afternoon is—"The Responsibility of Men in connection with Matters relating to Maternity and Child Welfare." When I first heard about the proposals for this Exhibition I wrote to the Secretary asking if men would be admitted. I received an immediate reply to the effect that not only would they be welcomed but that the organisers hoped that there would be a very large attendance of men. We have come and most of us have already seen something of what this great Exhibition has to shew us of conditions as they are, and as they might be, as regards maternity and child welfare in this country. Does, what we have seen, leave us cold, or have we been fired with a desire to do something more than we have ever before attempted to remedy what we see to be wrong ?

I.—Our first question then this afternoon is—" Have we as men any responsibility with regard to the conditions under which our children are born, and as regards their welfare during early life ? " The traditional attitude has been undoubtedly to regard all these matters as the special domain of the women of the household. In other matters, such as food, clothing, household expenses, the education of the children, and the like, we have expressed our opinion ; but here we are not supposed to know anything. It is the women who bear our children and rear them, surely they must know their own business best. Of recent years, many men have begun to feel doubts as to the soundness of this position. With the advent of education, which has done so much for us—men, and so little alas !—as yet for our sisters, we have begun to look at matters connected with life and health and social welfare with a new interest. We have read in our books and newspapers of progress made in other lands or in other communities than our own, many of us have studied in school or college, the elementary principles of physiology, and with the general widening of our mental horizon have come to distrust the old fashioned superstitions which still hold sway in the *zenana*.

Now, I would say that this doubt which is springing up in your hearts is right and proper ; it is, in fact, the inevitable result of the knowledge which you are acquiring. The common complaint against education in India is that what is given is mere " head-knowledge," that it

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

fails to touch the deeper motives and springs of action. Sooner or later, however, it *must* do this, and with real knowledge comes responsibility. The blind man is not blamed, when his child wanders on the edge of a precipice, but when his sight has been restored, he would be guilty of murder did he see it and not rush forward to save it from destruction.

It is not only school teaching which is arousing the men of India to look into these matters. A far deeper knowledge comes with the experience of life with its anxieties and sorrows ; when once the individual has begun to think out things for himself and to look for cause and effect where before he knew only blind fate or chance. How many times have I—during work amongst Pathans on the Frontier—when advising an operation as a certain means of obtaining relief from suffering or of saving life, been met by a refusal with the words " if it is her fate to die, so be it." This fatalistic habit of mind is being dispelled by the spread of knowledge, and men who have grieved over the loss of wife or child, have been asking themselves—sometimes with agonised longing—" could it have been prevented ? " Would that the question should lead on to the more practical one—" How can I prevent such disaster happening again ? " Gentlemen, it is in order to answer such questions that this Exhibition has been organised, and its usefulness will, in the main, depend upon the extent to which you interpret the lessons which it teaches, in terms of the conditions actually obtaining to-day in your own homes.

So then. I would say that upon the men of India rests a heavy and ever-increasing weight of responsibility for the large amount of preventible suffering and mortality

CSL

amongst women during and after childbirth and amongst little children during their first year of life. We come now to the question—" what are the mistakes, if any, in present methods which need to be guarded against or remedied ? " If I visit your garden and make criticisms and objections regarding the arrangement of it and the flowers which it contains you would be quite right in replying to me—" Show me *your* garden that I may see if your arrangements are better than my own." Let me then speak for a moment as to the methods and practice regarding childbirth which obtain amongst English people. Many of these practices have already spread into your own homes since you, whom I am addressing, belong to those who have had intercourse with the people of the West.

To proceed then, when the birth of a child is expected in a family in England—I am not speaking of the very poor—the husband and wife consider together how best they may arrange that the event may take place under such circumstances as to ensure the safety and welfare of the expectant mother and the survival of a healthy child. The doctor is called in beforehand and under his advice the best bedroom of the house is chosen while detailed instructions are received as to how this room should be prepared for use at the appointed time. Unnecessary curtains are taken down; the room is carefully cleaned and made ready in every way possible. A trained maternity nurse is engaged beforehand to stay for a month at a salary of, it may be, Rs. 50 or 100 a month (according to the means of the patient) and in accordance with the advice, both of the nurse and of the Doctor, a list of requirements is made up and carefully provided from a reliable chemist. This supply of neces-

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

sary requisites includes many of the various things which you will have seen in this Exhibition and the object of all the preparation is to ensure that at the time of need nothing shall be lacking to enable the confinement to take place under the best possible conditions of asepsis and efficiency. In fact, the arrangements are in many respects similar to those made before an important major operation in a private house. You will reply that this must cost a great deal of money ; and it is true. The need for more generous spending at such times is one of the things that I wish to impress upon you to-day, since you are the bread winners and the money providers for your families. In India, money is spent without stint, often with the most profuse extravagance, for the ceremonies connected with marriage. I ask you,—Is it right to spend hundreds of rupees in unnecessary feasting and rejoicing at the time of marriage and to grudge the tens of rupees which would make all the difference between life and death both of wife and child at the time when the wife is passing through the great crisis of child bearing ? Again and again, when I have paid the preliminary visit that I have described above to the home of an English patient, not of a wealthy class, I have been begged by the husband to spare no expense since he well understood that the whole happiness of his home and of his own life might depend upon arrangements for efficiency at that time.

I have been speaking of the homes of the well-to-do. Poverty exists in the West as in the East, and the difficulties are very great in bringing the best of methods and practices within the reach of the poor ; but, even here, a vast improvement has occurred during recent years. The old-fashioned untrained midwife has given place

CSL

to the trained, certificated maternity nurse. These are carefully trained in large institutions where thousands of women attend for their confinements. Having been trained they are examined and registered as being capable of attending cases efficiently in the homes of the poor. Thus, either in the great lying-in hospitals in our cities or else, by the aid of these trained nurses, a vast number of the poor in England are now able to take advantage of the benefits of real medical efficiency as regards maternity and the early treatment of the newly-born child. Do not think it was always like this. It is not so very many years ago since Surgeons used to lament over the large number of cases who died of blood-poisoning after operations, while maternity Doctors used to mourn over the large number of women who died from Puerperal fever after childbirth. By the researches of the famous Lord Lister and others it was found that the blood-poisoning was really germ poisoning owing to the presence of microscopic germs introduced at the time of operation into the fresh wound, and it was found that by taking great precautions—antiseptic or aseptic precautions as we call them—to avoid the presence of these germs, this blood-poisoning was prevented and surgery was robbed of most of its danger.

Puerperal fever, however, remained as a frequent cause of suffering and death, until it was ascertained that this too was caused—not by chill as is commonly thought in this country—but by the action of similar germs upon the fresh open surface of the womb from which the child has been separated. Here, again, it was found that the same sort of precautions which kept out germs from operation wounds and prevented blood-poisoning, those same aseptic precautions—utter cleanliness—would keep out germs from the womb of the recently delivered mother and save her from the risk of the fatal child-bed fever.

As a result it follows that whereas in former years the doctor mourned the unfortunate chance through which his patient had died, from fever after confinement, now, when, most rarely such a case does happen the doctor blames himself and tries to discover through what possible lack of care on his part the fatal poison may have gained its entrance.

So, also, with the new-born child; formerly it was left a good deal to itself; if it lived, it lived; if it died, well new-born children were weakly beings and it could not be helped. Now, however, as a result of the carefully recorded experience of thousands of thoughtful observers, many wise rules have been laid down, dealing with the detail of food and clothing of cleanliness and the treatment of various common disorders occurring in young infants, until now the number of deaths during the first year of life has become in many places only half of what it used to be.

Now, Gentlemen, it is time to turn our thoughts to the other side of the picture; what shall we say of conditions as they exist in Indian homes to-day?

May I refer for a moment to my personal experience? During over 20 years of medical practice in two of the large cities of northern India I had had occasional opportunities of seeing how confinements were managed in houses both of rich and poor. I had seen a constant succession of fatal cases of Puerperal fever in the practice of individual *dais*, and had been horrified at the conditions under which, even in prosperous families, the actual crisis of childbirth was allowed to take place.

GSL

Then, five years ago, I was commissioned to go through India to inquire into the causation and prevalence of Tuberculosis and was amazed to find wherever I went that all observers, Indian and European—medical and lay, agreed in the opinion that a great proportion of cases of Tuberculosis in women had their origin at the time of childbirth. This opinion was expressed with such unanimity as to force me to make most careful inquiries as to the practices actually in vogue in various parts.

What did I find? I know well that those whom I am now addressing will have, to some extent at least abandoned in their own homes the practices which I shall now allude to, but I am equally certain that they will acquiesce in the general correctness of the description of conditions as they are to be found to-day in almost every part of India. It is for those who know a better way to unite in making it known to others.

The practices which are found to exist are founded upon three sets of ideas; firstly, the religious belief that a woman at the time of childbirth is ceremonially unclean, more defiling in fact than the lowest "outcastes;" secondly, the belief that fresh air, whether warm or cold, is dangerously harmful both for mother and child, being the usual cause of Puerperal fever; and, thirdly, a group of superstitious and old-fashioned theories as to medical treatment which naturally differ in various parts, but usually tend towards the extreme depression of the mother's physical strength during the lying-in period.

The belief that the woman at this time is unclean and a source of defilement to others determines the whole entourage of the confinement. The room chosen must be not one which is used by other members of the household, and in actual practice it is very commonly a closet or out-house with dung-plastered mud flood and walls, and the smallest possible doors and windows which are always kept rigidly shut. In some parts of Bengal a minute booth or shelter for the purpose will be constructed of matting in the back yard. The same idea dictates that it is an absurdity to use anything clean for one who is herself unclean, and so the oldest, dirtiest, coloured rags are often used, while, as a matter of ordinary fact, the midwife in place of the spotless clothing protected by the sterilized "over-all" of the West, delays to attend until she shall have exchanged her ordinary working costume for the dirty clothes suitable for the occasion, and used probably many times before without being washed.

Perhaps, the hardest of all the consequences of this idea is the fact that it banishes the girl's own mother at the very time when, if ever in a lifetime, a mother's help is needed. While, in some parts, it is permissible for the mother to enter the room on condition of her undergoing special ceremonial cleansing afterwards, special sets of clothing being sometimes reserved for the occasion; yet, in the vast majority of cases the presence of the mother is forbidden. This would matter less if the midwife was one in whom confidence might safely be placed. But this is far indeed from being the case. Dirty in habits, careless in work and often callous to suffering, bold in treatment, with courage born of gross ignorance, and which causes untold mischief to her patients, the Indian "*dai*" belongs to a profession which, more than almost any other, is in urgent need of reform. Its very nature, as things now are, limits it to women of the lowest class while the fact that it is here-

GSL

ditary, one individual regarding it as her right to have the care of a limited group of families, removes the incentive of competition and rivalry. I have traced the course of a single woman of this sort for years amongst the respectable Hindus of a large city, her operations being continually followed by a trial of Puerperal fever and death. She and those like her would make frequent internal examinations, never using water to cleanse her hands until the end of the case.

Wonder is often expressed at the exceeding frequency of tetanus both amongst parturient women and the newly-born. Why wonder, when one remembers that the tetanus bacillus has its habitat in the earth, especially in dung containing earth ? The nurse in very many places rubs her hand upon the mud-plastered floor as a cleansing process preliminary to her operations, while it is the correct procedure for delivery to take place with the patient lying not on a bedstead but on the same mud floor.

What I wish you to realise regarding the conditions just described is that just in the same way in which carelessness regarding cleanliness at a surgical operation results in blood-poisoning so the fatal form of fever following childbirth which is so often regarded as due to chill is really nothing more nor less than blood-poisoning, or shall we call it germ infection from lack of cleanliness at the time of childbirth. The nurse who makes an internal examination without carefully washing her hands may often by that very act be conveying a fatal poison to her patient.

It is the second of the above-mentioned ideas which is the more closely connected with tuberculosis infection. It is an accepted canon of midwifery in India that Puer-

CSL

peral fever results from exposure to chill, and so, the most elaborate care is taken to shut out every breath of fresh air. Even in hot weather the window and door will be tightly closed, every aperture blocked with dirty clothes, and what air remains is still further vitiated by the use of charcoal fires (in *angithis* or braziers) in the room throughout the lying-in period. This last practice is believed to have the effect of drying up discharges, but is also, in many places, it is regarded, as a means of protection from evil spirits.

The patient, during a time which varies from 6 to 13 days, has to remain—usually unbathed—in an atmosphere of almost indescribable foulness, and this when she is at the lowest possible ebb of physical strength and of power to resist disease. We have thus, in close combination, the two factors which are nowadays being emphasized as contributing most strongly to Tuberculosis infection; namely, a massive dose of the germ poison, coinciding with a phase of minimal resistance on the part of the patient. Need we wonder if what I unhesitatingly affirm to be the case—a large number of young married women date the onset of an attack of consumption from the time immediately following the birth of their first child? The actual process may vary in different cases; with many, it may be the arousal into activity, now that resistance is broken down, of a previously latent infection; others may become infected *denovo* from prolonged exposure to a germ-laden atmosphere. The sequel is the same, and the disease contracted under such circumstances usually progresses with rapidity to a fatal issue.

Further, as if to ensure that nothing should be wanting to try the constitution of the patient to the uttermost,

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

She has to undergo during these early days a diet régime of the greatest severity. Milk in any form and in fact almost every kind of really nourishing food is forbidden during the first few days. Water is given very sparingly ; in South India, it is usually withheld entirely during the first 24 hours as being liable to cause chill, but bitter drugs and hot condiments are given freely. In Rajputana, if the child dies, the proper diet for the mother during the first three days is said to be a decoction of copper coins and bamboo, while rice and pepper water seem to be regarded in many places as being the best general diet ! The details naturally differ in various parts, but almost always agree in the one principle so utterly at variance with the established practice of modern obstetrics, that of keeping the patient on a lowering diet during the whole of the lying-in period. All this is a poor preparation for the further drain of lactation, the long prolongation of which adds still more to the series of heavy calls upon the strength of the young wife.

It is a commonplace of medicine that pregnancy and child-bearing, even under the best conditions possible, are a serious complication of early tubercle, frequently causing the disease to take on a more severe and acute form ; what wonder if their results should still more frequently follow conditions such as have been described above, or that the disease of consumption previously existing in a wholly latent and undiscovered form should after such treatment suddenly light up into activity.

There are many who feel that any movement to substitute modern Western methods for those which have been sanctioned by immemorial usage in the East shows a lack of patriotic feeling, and the dictum that " Indian ways are best for India" is frequently uttered and accepted without question. I would earnestly beg my hearers to make a careful study of the local statistics referring to these matters, and after thus putting the question to the test decide whether or not Indian methods in this respect have indeed proved a success.

A few typical statistics will illustrate my meaning. In England and Wales, the deaths of women attributed to pregnancy or childbirth amounted in 1917 to 1,598 (*i.e.*, 3·89 per thousand childbirths).

In Delhi, there were, in 1914, 136 deaths directly attributed to causes connected with childbirth. With a total of 10,762 this gives a death rate of 12·6 per thousand births.

At one small town of 5,000 inhabitants in Northern India, the *dais* and local doctor between them gave to a medical friend the actual names of no less than 12 women who had died from sepsis after childbirth in a single month.

Can Indian mothers claim that their methods are satisfactory with regard to newly-born infants? Sir George Newman, the chief medical officer of the recently established Ministry of Health in England, says that "the death rate of infants is the most sensitive index we possess of physical welfare and of the effect of sanitary Government." By the infant mortality rate we mean the number of infants out of every 1,000 born *who die* in their first year of life. Fifty years ago, this rate in England was 162. It has now fallen as a result of improved sanitation and more careful supervision of the conditions of childbirth, etc., until, in 1917, it was only 96. In many of the large towns in England the infant death rate last year was below 70 and in some of the

CSL

smaller towns even below 50. In contrast with this we find from the official statistics of Indian cities that there is scarcely a large town in which the infant mortality rate is not higher than 200 and in many of the largest towns it is more than 400. The following are fairly typical :—

Bombay	1918	436·37
Mandalay	1916	443·3
Delhi	1917	256·24
Madras	1918	360·7

Inquiry at Rangoon shewed that in 1906, amongst infants attended at their birth by midwives of the Local Society for prevention of Infantile Mortality the rate was only 106·5.

The prodigious amount of preventible suffering and sorrow which such figures represent can only be dimly imagined.

The results of two further actual inquiries may be added.

The following questions were put one morning to the first 50 married women attending the out-door dispensary of the Lady Dufferin Hospital at Karachi :—

(1) How many pregnancies they had had ?

(2) How many of the children were now alive ?

The total number of pregnancies amongst the 50 was 241 and the number of children surviving only 120.

In Delhi, two ladies engaged in domestic maternity nursing work in the city were asked by myself to enquire from mothers in 1,000 consecutive cases to which they were called (where it was not the first confinement) whether the first-born was still alive. The result obtained was that out of the 1,000 women 657 had lost their first-born child leaving only 343 remaining.

CSL

It is not necessary at this time to go into details regarding the care required for the newly-born infant. Suffice it to say, that there are thousands of children blind to-day in India whose eyesight would have been saved had there been some one present at birth who knew the importance of carefully cleansing the eye of the newly-born infant and thus preserving it from a common form of severe ophthalmia.

There are matters of even greater importance in relation to the wise feeding and tending of the child regarding which the methods commonly practised in this country have been clearly proved to be unsatisfactory and where the experience of the trained nurse will often prevent or cure the digestive and other disturbances which so frequently destroy life in the early days.

III.—We come now to the closing and most practical part of our subject :—

What can we, men, do in order to put an end to the mistaken practices of which we have heard and to popularise more enlightened methods? First of all, surely, we must begin with our own homes. And here let me tell a story of something that has recently happened in my own experience :—

A short time ago, I took a course of simple lessons in maternity nursing methods for a group of about 20 *dais* in a small town. Afterwards the Pathan orderly who had been on duty where the lectures were held came to me to announce the birth of his first-born son, adding with pride that he had listened at the door to my teaching and had cleansed and whitewashed his house before the event and had warned the nurse that unless she washed herself and did all that the doctor sahib had said,

GSL

she would not get any pay! That is what Indian homes need to-day from their masters!

Will you then set your faces steadfastly towards encouraging—nay insisting upon—some rational methods in your own home and so far as you may have influence, amongst your friends? It will not be altogether easy, especially as regards matters connected with caste and religious prejudice. Here, of course, I would be the last to press any one to act contrary to his religious convictions, but, even so, there is much which might be done even by the most orthodox to secure conditions of sanitary safety. Even, if your wife—or, say, your daughter-in-law—is compelled to use a room other than the one which a doctor might have chosen, you could probably at least insist upon its being carefully cleansed up and whitewashed beforehand. And probably if you assert your opinion with sufficient clearness you might be able to induce the ladies of your household to consent to make use of the supply of aseptic materials which you will have purchased beforehand for the purpose. For I feel sure that in future carefully selected parcels of requisites suitable for use at confinements in an Indian house will be available at all chemists. Such a parcel might contain an over-all or apron to cover the nurse's clothing, carbolic soap, and a nail brush for her hands, a number of clean, *i.e.*, sterilised cloths to take the place of the dirty rags which the *dai* commonly uses, a pad of clean wool or other absorbent material to place beneath the patient and other small details which need not be mentioned here but which would be of the greatest value if they were ready at the time. If you without asking any question beforehand would just purchase these things on your own account and then shew them to the ladies of your household I think that they would themselves appreciate your forethought and the value of what had been provided. The educative effect of seeing the contrast between what ought to be and what commonly is would of itself justify the expense.

Without going further into detail I suggest that it is your duty to acquire the necessary knowledge as to the risks of maternity and how they may be avoided, and to assert your own will in accordance with that knowledge.

Next, we come to the question as to how we may fulfil our responsibilities in these matters with reference to the community to which we belong. How can you as members, it may be, of Municipal Committees or as leaders in a small town or village, or as members of Social Service Leagues help forward schemes which aim at bringing trained assistance within reach of the poor? You may support the local women's hospital, especially in its maternity department; you may introduce schemes for the training of maternity nurses in the, or for the, employment of trained nurses in the homes of the poorer people. And here, again, we are up against one of the great social problems of the day, the influencing of public opinion in favour of the training and employment of women of good position as nurses. The desire to have trained nurses for domestic maternity work in place of the untrained indigenous *dai* is already expressed on many sides, but the women are not available. Attempts are being made but with only moderate success to train the low-class hereditary midwives. Their intelligence is usually too low to enable them to appreciate the value of what they are taught and they tend too often to relapse into their old methods. It is the better-class women who are needed, those who will respond to training and who

CSL

will enter with intelligence and enthusiasm into the work. Are these for ever to be shut out from this grandest of callings by limitations imposed by caste? It is for India to answer, the India which has already made a virtue of necessity and condoned the inevitable contact of the railway carriage and the still more serious step of overseas travel. India needs her thousands of lady nurses; will Indian men make it easy or hard for them to come forward? There is another difficulty. In England, a nurse in uniform may go in perfect safety from insult through the darkest slums of our great cities. In India, too often the woman who works independently as a nurse is almost regarded as the lawful prey of a certain class of men, as a consequence, of course, of the low estimation in which up to the present the nurses' profession has been held. Will you not only be chivalrous in your own thoughts about women engaged in this work but do all in your power to make it the recognised thing to treat them with the respect which is their due?

One other point of importance. Maternity nursing will not be improved until Indians are prepared to pay a proper price for it. All over the country the most ordinary fee for the midwife amongst the middle classes is one rupee with perhaps a few old clothes, and this includes not only attendance at the confinement but also menial and often degrading service during several days afterwards. Amongst the poor, 4 annas is a common fee if the child is a boy; 2 annas for a girl! In this world, the quality of goods obtained usually depends upon the price paid, and the Indian of to-day pays on his wife's account the price of utter inefficiency and gets it! Let him deny himself and insist on cleanliness, experience and efficiency here at all events, even if he

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

had to pay a higher price for it, and employ a sweeper woman in addition. He will have his rich reward in health and happiness in the home afterwards.

I would even venture to make a suggestion which might well be put into practice all over India. It is that at the time of marriage when the parents have decided upon the amount which it is incumbent upon them to spend upon their daughter's wedding it should become the custom for them to deliberately set aside one-fifth of the total amount to be handed over to the young couple as a sacred charge for use at the time when the first child is born. I believe that some such practice as this would commend itself to all and would result in a great saving of life and suffering.

Finally, Gentlemen, these are days in which it behoves us to be up and doing. This is part—an important part—of what is now being spoken of as a transferred subject. There are those who feel anxiously that it should be so ; their anxiety is due to the fact that it is an experiment of which the price of failure will have to be paid in human lives and suffering. Will you rise to this great opportunity and accept the responsibility which devolves upon you resolving that so far as lies in your power you will earn the gratitude and not the silent condemnation of the millions whose future welfare for better or worse is in these days being entrusted to your care.

[LECTURE FOR THE PUBLIC.]

Feeding and Rearing of Infants.

By DR. RUTH YOUNG.

MR. CHAIRMAN, LADIES and GENTLEMEN,

I feel a great responsibility has been laid upon me by the promoters of the Exhibition in asking me to give a

CSL

lecture on a subject such as the feeding and rearing of children. It seems to me to be one of the most important of all the subjects that are to be discussed in this Exhibition, and it is also a subject which is of the greatest moment to the general public. Almost every member of that public is at one time during his or her life directly concerned with the upbringing of young children, and no one can have these duties thrust upon him without feeling that a great responsibility and a high trust are involved. A very wise man Socrates, said 2,500 years ago : "In every work the beginning is the most important part, especially dealing with anything young and tender." This is surely supremely true of the young lives which are entrusted to our care ; it is at the start of life that we can make or mar the man or woman that is to be ; the first weeks and months even the first days, lay the foundations for future health and happiness. If we build well and truly then we do more than we can ever hope to do later on. Once we let the little body get weak or the little mind form bad habits we shall have the greatest difficulty in restoring the broken health, and in training the growing intelligence and character along right lines, whereas if we start well we have fought half the battle of life for the child while he is as yet almost unaware of his own existence. I speak as a mother myself and I ask the mothers and fathers in this audience—is there anything in life more rewarding than to see a little child growing daily in health and strength and also in intelligence under one's care and guidance? Surely any pains taken are compensated to us tenfold as we see the results in the mind and body of one child. This subject is also very important owing to the high infant mortality of India. When we ask ourselves the question what are the baby's needs, perhaps the answer we would receive first would be "food" or rather milk. The baby's first interest in life is to feed. His happiness largely depends on the food he receives. It must be of the right kind, in the right quantity and given at the right time. If we can achieve these things we shall have a contented baby and one who will grow and flourish abundantly.

In considering the question of the baby's food, what is the choice before us ? The child may have his mother's milk, or that of another woman, or he may have the milk of cows, goats or asses, or he may be fed on condensed or dried milks. The ideal, of course, is that the baby should have his own mother's milk. This is what is intended for him, and which will suit him best. In India fortunately we have little need to urge upon mothers the need to suckle their babies. The great majority of women take it as a matter of course that they are to do so, and have no other thought. This is a matter for congratulation, and we may hope that the day will never come in India when women, through the pressure of industrial life or for their own selfish indulgence, cease to nurse their babies.

We are beginning to realise now-a-days however, that although nature has made the best provision for the child in supplying him with his mother's milk, we can make a good many mistakes in the use of this precious fluid. We are apt to think that because suckling is a natural process we need no guidance in breast-feeding babies. This is not the case. It is as necessary to regulate breast-feeding as it is to give a bottle at proper intervals. Yet what do we find ? We find the baby fed without regard to time—that is, at irregular intervals—generally when he cries. He is allowed to go on sleeping on the other hand, as long as he will—the jaded mother, not to speak of the father, is only too glad to have a few hours' peace. Now all this is bad for the baby. It is only common sense to realise that irregularity is harmful. We ourselves as adults do not dream of eating every hour or so, or even when we feel inclined. If we are wise we wait till the appointed hour comes. So is it with the baby. If the grown up person will suffer from indigestion through taking his food too soon, will not the baby suffer in the same way ? Yet what do we find ? Generally that no regard whatever is paid to time, and the baby takes a nibble when he feels inclined. It is easy to imagine what happens in his little stomach. If he is fed frequently he does not take enough to satisfy him for long because he is not hungry enough, yet what he has taken an hour before is not properly digested when he takes more. The stomach is therefore never empty and never gets a chance to rest. What wonder that it sometimes rebels at this persistent overwork and rejects the proferred food. The mother is frequently distressed when this happens, and because the child has been sick, thinks he needs more. But the baby is really wiser than she and refuses the food which he is unable to digest. Irregular feeding means too the baby's sleep is broken in upon. He does not get the long regular sleep which the young baby required, and therefore is fretful and cries. Then again what is the effect on the mother's breast. The breast is never properly emptied. This is not good for it. A healthy baby if fed at regular intervals, practically empties the breast at each feed. This stimulates the further secretion of milk in the breast and so a good supply of milk is kept up. The regular intervals too mean that the breast gets a proper period of rest needed to enable it to secrete the proper milk supply. If the baby is fed frequently he does not empty the breast. The first part of the breast milk is richer in protein, *i.e.*, the flesh-forming element in milk, and the latter part in fat. If the breast is not emptied and the child fed again in say, an hour, he gets at the beginning of the feed what he should have had at the end, and his stomach is upset by this also. If the breast is not emptied it is not stimulated to produce more milk, and the quality of the milk deteriorates. The baby suffers again.

Formerly it was the custom when babies were fed at regular intervals, to make the interval two hours. It is more and more becoming the rule to feed the baby from the beginning only every three hours. This is, of course, if the baby is strong and healthy. Delicate babies need shorter intervals as they take less at a time. Those who feed their own babies at 3 hourly intervals or advise others to do so, find that the babies flourish, they are hungry for their milk, take it well and sleep well in between. After a few months the baby is promoted to four hourly feeding. Some babies seem to prefer this at a very early age while others have to be kept on hourly feeds till 4—5 months. The mother who feeds her baby according to this method will find, not only that the baby grows and thrives but that it is more restful and convenient for herself. She has more leisure for her other household tasks, and she can also rest during the day when the baby sleeps. Another modern custom which is proving of advantage to both mother and child, is that of having the child sleep throughout the night without feeding. Some babies learn to do this from the very start of life. Others require a little persuasion. Unless small and delicate they should sleep from 10 P.M. to 6 A.M. by the end of the first month. They make water in the night and require to be dried and turned over, but should sleep again till the feeding time

CSL

comes. The baby thus gets a long night's sleep and so does the mother. The long night's sleep is very valuable to the mother who is nursing her child. A nursing mother has to husband all her strength and the broken nights which many have, makes them tired and the milk of poorer quality.

We have mentioned as one of the great advantages of breast-feeding, the fact that it is meant for the baby and suited to his digestive capacity. Another supreme advantage lies in the fact that human milk is, practically speaking, sterile whereas cow's milk is very seldom so. The mother's milk goes straight from her breast into the baby's mouth, and the cow's milk must of necessity pass through one or more vessels, and in addition is liable to contamination from the air. This is of special importance in India where the conditions of climate make it very difficult to keep milk properly. If the mother feeds her baby herself there is no chance of him being upset by infection of the milk, or carelessness in keeping the bottles and teats clean.

We have laid stress on the desirability of regularity in breast-feeding for the sake of both baby and mother. I should like to add a few more words as to the general hygiene of the mother during lactation. The mother who nurses her child must care for her own health or her milk may deteriorate in quality and become less abundant in quantity. She must lead a hygienic life, that is have plenty of fresh air, good, nourshing but simple food, good sleep at night and a mid-day rest, freedom from worry, and a reasonable amount of exercise. Women who are nursing their babies do not need to lead idle lives, they can do their ordinary household tasks, and should have a daily walk in the open air. But they should not get

CSL

tired and overstrained, nor should they be subjected to worry or care.

Nursing mothers must pay special attention to the cleanliness of the breast and nipple. The whole breast and especially the nipple should be thoroughly washed with soap and warm water every day. At the beginning of lactation the nipple is apt to become sore, and it should be washed with boracic lotion before and after suckling if at all sore.

Passing from mother's milk, we come to consider what are the substitutes we can give to the child if the mother for any reason is not able to nurse her child. The best of course is the milk of another woman. This means that the child is getting the milk which most nearly approaches his mother's milk and therefore has the advantages of suitability and sterility. For delicate and premature babies the milk of a wet nurse is almost indispensible. Unfortunately a good wet nurse is very difficult to obtain, and is also rather expensive as the ordinary *dai* demands high payment and various additions to her pay in the shape of clothes, etc. In choosing a wet nurse there are several things to take into consideration. The *dai* must be a perfectly healthy woman. She must be thoroughly examined by a good doctor to see that she is free from any kind of disease. The second important consideration is that her own child must be about the same age as the child who is to be nursed by her. It will not do to give the milk of a mother who has a child nine months old to a newly born baby. The wet nurse must of course have a good supply of milk, and her breast must be free from cracks and fissures.

Usually, when the mother's own milk supply fails we have to resort to another source for feeding the infant,

GSL

Every other kind of milk has certain disadvantages, but of course with care almost every child can be brought up on it. The most obvious disadvantages are the fact that no milk can be made exactly to correspond with mother's milk, and secondly there is always the difficulty of securing perfect sterility. Perhaps the most important thing to remember about artificial feeding, is that each child must be specially studied so that we can discover what particular mixture suits him best. The person who thinks he can feed a baby according to a milk formula in a book is making a great mistake. Successful feeding does not lie that way. At most the milk formula is a basis on which we may start in order to find out what the child needs. Artificially fed babies should always be weighed. This is the most important indication of their progress. If they gain steadily in weight we may be pretty certain that the particular mixture we have adopted is suiting the baby and sufficient for his needs.

What are the different varieties of artificial food which we may adopt if the mother's milk fails us ? We can use the milk of the cow, the goat or the ass, or we may use a form of dried milk or a so-called infant food. With regard to the milk of animals in the fresh state, cow's milk is most commonly used. Ass's milk is that which resembles the mother's milk most closely. It is used in Sindh I believe, but not in these parts. Both cow's and goat's milk differ from human milk in that they contain a large proportion of protein, or the flesh forming element in milk, and a less amount of sugar. In order to make them suitable we have therefore to add water to reduce the amount of protein, and add sugar and cream to make up for what is lacking. By carefully studying the needs of the particular child with which we are dealing we can rear a child very successfully on cow's milk. Most children will thrive better if part of the milk given is given in the form of whey as this is more easily digested than whole milk. Citrate of Soda may also be used to prevent the formation of curd.

Some of the dried milks which are placed on the market are quite good such as Glaxo, Malted milk, etc. They are easy to prepare and are sterile. They are to be recommended where reliable cow's milk cannot be obtained, or when travelling or camping.

The so-called infant foods must be used with care. They are at times beneficial, but they should be used only when recommended by a doctor. Many of them contain a large proportion of insoluble starch which the young child is not able to digest. Others are intended for use along with milk and are really milk modifiers. Flour balls that is, flour (*maida*) boiled in a cloth and then baked is just as good and much cheaper. Other foods contain *ferments* such as pancreatin and so are partly pre-digested, *e.g.*, Benger's Food. They are useful for delicate babies. Parents who feed their children on one of these milk substitutes should study the composition of the food they are to give with care, so that they are under no delusions as to what the child is receiving. Condensed milk suits some babies, but it does not contain enough protein or fat and the babies fed on it, though they become fat, are apt to be flabby.

The use of any substitute for milk involves feeding the child by a bottle. The use of the bottle requires a great deal of care if it is not to be a source of danger to the child. If the bottle is not kept perfectly clean the milk will be contaminated and the child's digestion upset. The same applies to the care of the teats. Teats are expensive and

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

the hole becomes too large very quickly so that the tea has to be discarded. It is essential that the hole should not be too large. It is the child takes his food too easily and quickly swallows air and then has colic. In addition he does not get enough exercise in taking his milk. A breast fed baby works hard for his food. The milk comes out of very narrow openings and as a result the baby has to suck hard to extract it. This is good for his jaws and the surrounding parts and helps to defend him against the occurrence of adenoids later on.

One cannot leave the subject of bottle feeding without a reference to *vitamines.* These are substances which are present in very small quantities in milk, but which are of great importance, for if they are absent the child is liable to such diseases as scurvy, rickets and others. Unfortunately these vitamines are easily destroyed by heat, and so milk which has been boiled is not rich in them. If we have to feed the child on boiled milk then we must supply him with these vitamines in another form. Certain fruit juices are rich in them, and so all children who are not receiving mother's milk should be given some fruit juice daily. The juice of oranges and grapes is good, and if these cannot be afforded, the juice of raw turnips is said to be very good. The turnip is scraped and the pulp squeezed through muslin.

When the child reaches 9—12 months he must be weaned. If possible it is best, with breast fed infants, to try and make them take cows milk from a cup and spoon at once so as to avoid the use of the bottle altogether. Mothers should not go on suckling their babies after 9—10 months unless the season of the year is bad when it may be prolonged to one year. The first foods to be given are various forms of starch, *e.g.*, rice, sago, etc., also suji

GSL

and dalya. These can all be made into jellies at first by boiling them in water and then putting them through a sieve so as to remove the undigestible portion. Foods containing protein are also added to the diet such as dal and eggs. The child may be given chapati to eat, as the tough substance is good for the development of his jaws. Vegetables which must be well pulped at first, are gradually added to the child's diet, and also fruits, sweets are not advised.

Even after weaning the child of course still needs to drink a considerable quantity of milk about a seer a day for a child of one year old. The child should however always take the solid part of his meal first.

I have spent the greater portion of our time this afternoon in dealing with the child's greatest need, *i.e.*, food. It is not however his only need. What are some of the others ?

First there is sleep or rest. The quite young baby spends a large portion of his time in sleep. During sleep his body is built up and that is his first task in life. Babies who are getting the food which satisfies them, generally sleep well. They should be taught if possible from the start of life to sleep through the night. Babies should always sleep in their own cradles, not with their mothers as is the usual custom. If they sleep with the mother they do not get the same amount of pure air to breathe, they are hampered in their movements, and moreover the habit is itself bad. Babies should not be rocked to sleep if possible because this forms a habit which is very difficult to break.

Another of the child's needs is warmth. This applies specially to places such as Delhi and the Punjab where the cold is rather severe in the winter. If you look at the infant mortality figure for Delhi you will see what a large proportion of babies die from pneumonia and bronchitis. This is largely because they are underclothed. It is also sometimes because they do not get sufficient fresh air. Cold fresh air does the baby no harm if he is warmly clothed. But the poor who cannot afford warm clothes keep their children under shawls in their arms with the result that when the child is uncovered he catches a chill partly through exposure, and partly through breathing fresh air to which he is unaccustomed.

Fresh air is of great importance to the baby also. It develops his lungs, makes him resistant to tuberculosis, and other lung diseases, makes him sleep well and gives him a good appetite.

Finally one of the most essential things in bringing up children is regularity of all habits. It is fairly easy to train the baby when young, but very difficult to unlearn bad habits at 2 or 3 years of age. The mother must learn good habits herself, and must exercise a good deal of self-control. It is a great temptation to take the baby in one's arms when he cries, but the baby so soon learns that his mother will yield to him if he cries and then the baby is master of the mother. If we teach regular habits to the infant at the start of life we give him something for which he will thank us all his life long.

“ Feeble-Mindedness in India.

A paper read before the Child Welfare Exhibition, by Miss S. DELAPLACE, *Lady Superintendent, the Children's House, Kurseong.*

While it is my object to place before you to-day a subject calling for the gravest consideration, a subject dealing with issues of supreme moment because beyond the individuals with whom we are about to concern ourselves, lie the under questions of the safety of the community and the preservation of the race both of which are threatened—yet it is not as a prophet of woe, garbed in the painful garment of an atmosphere of ill-omen that I wish to address you now.

There are somethings so essentially a matter of heartbreak, that we dare not set ourselves to deal with them as ordinary matters of our everyday life, except we have sought and received a divine gift of faith, and have learned to see through the radiance of hope, things that we otherwise could not bear—of such things the marred and deformed image of God is one. In ordinary language we call it—Mental Deficiency.

There are many forms of Mental Deficiency. Experts classify them under appropriate names according to the outstanding physical and mental characteristics.

The Mental Deficiency Act of 1914 for England and Wales, takes into account four classes of mental deficients —Idiots, Imbeciles, Feeble-minded persons, and Moral Imbeciles.

Idiots are those, so deeply defective in mind as to be unable to guard themselves against common physical dangers.

Imbeciles while able to protect themselves in the usual way, are incapable of managing themselves or their affairs, or of being taught to do so.

Feeble-minded persons while having more intelligence than imbeciles yet require care, supervision and control and in the case of children are unable to benefit from instruction in ordinary schools. Moral Imbeciles from an early age display strong vicious or criminal propensities on which punishment has no effect. They may or may not show marked mental defect in other directions.

For our own purposes we will divide all mentally defective children into two broad classes—those so severely affected that it is impossible to teach or train them and those, by far the larger class, who though unable to benefit by the course and methods of instruction in ordinary schools, are capable of being trained and taught along general or special lines to a greater or less degree, in all cases attaining sufficient proficiency to lead a useful and therefore a happy life under suitable conditions. Within this class and yet distinct from it, comes the Moral Imbecile, a difficult and dangerous person whom we shall consider later on, a person made doubly dangerous to society because there exists no legislation to deal with him.

We might give yet another broad definition, and say that mentally defective persons are all those who are unable to apply their facilities to a useful purpose under the control of a dominant and disciplined will; or rather those, who because they are lacking in a dominant and disciplined will control are unable to apply such facilities as they have to a useful purpose. Such a definition includes all grades of feeble-minded persons, from the low grade deficient to those feeble-minded men and women whom the force of circumstances permit to muddle along somehow in the community under the guise of being responsible persons.

Though this may be a satisfactory definition as long as it is only a general opinion that we wish to form, we need something more definite when it becomes a question of a test to be applied, and especially so if we desire to distinguish one grade of feeble-mindedness from another, particularly in the higher grades where the distinguishing physical and mental signs are not so apparent to the ordinary observer.

General characteristics of degeneracy are divided into three classes, anatomical, physological and mental.

Anatomical characteristics are easily recognized ; they are mainly irregularities in the shape and size of the skull, want of symmetry in the face, deformities of the palate, defective teeth, ocular defects, anomalies in the disposition, size and shape of the ears, and defects and irregularities in the parts of the external ear.

This does not mean that such defects may not appear apart from mental affection, but they are more usually associated with it.

The physical defect are more difficult to recognize, but anæsthesia, hyperæsthesia, tremor, convulsive movements, epilepsy, deaf-mutism, stuttering and defective speech are easily apparent. Among the more general mental characteristics we may mention manias and various fears, a violent and uncontrolled temper, no power of attention, lack or will control, and temperamental peculiarities. There are other defects however which are not apparent except under careful testing.

It may well be asked here, how one is to distinguish a mentally defective child when none of the characteristics are very apparent—as a general rule when a child is, or has been very late in developing, is unusually backward, shows conspicuous lack of attention, does not play in the ordinary way and shuns the companionship of other children, it is time to question whether the child is not also mentally defective.

Having tried to arrive at some standard by which we may recognize the mental deficient, let us very briefly consider some of the causes of mental deficiency. Various diseases are accountable for forms of mental degeneracy, tuberculosis being one of them but the two chief factors, the two that are responsible for the greatest number of victims are alcoholism and that most terrible of all plagues the " social evil."

Shall we now pass on to the question. Why there should be institutions for Deficient Children, and why should every mentally afflicted child be in one ?

Let us in first of all consider the question from the view point of the child.

Have you ever been into a home where one of the children is feeble-minded ?

A few days ago a little boy was brought to me to be tested. He wore an expression I did not at first understand. In the course of testing him, I asked him how many brothers he had and their names, the gleam that came into his eyes told me a story. A few minutes later we spoke of the school he had been in, again that look of fierce resentment, and I understood what lay behind the habitual scowl he wore, understood the reason for the half fierce, half timid bearing, the look of settled hopelessness, the intense distrust and shrinking from observation. It meant that a child whose intense need was sympathy, encouragement, protection, a calm and soothing environment and love, had been neglected, had been contemptuously treated, had been thrown among companions from whom he received no mercy, and against whom he could make no stand, that he had lost hope and the capacity for merriment and that a feeling of rebellion against something he did not understand went with him everywhere.

Normal children are quick to find out mental weakness in a companion, and have the power to make that companion's life unbearable, and further to do the child much injury even when cruelty is not intended.

I wondered as I looked at the child I have just described how long it would take for some of the effects of the treatment he has received to wear off in the happy atmosphere of the Children's House. I am afraid it will be a long time before he learns to be a happy and a trusting child. So much for the fate a child may suffer at the hands of its companions. You will better understand the need of institutional life for such children when I tell you that it is a rare case indeed in which the parents of a feeble-minded child are not among its worst enemies, whether they love or dislike the child. You may question whether a mother can dislike her child no matter what the condition of the child—it is not my purpose here to tell you of things that might have seemed unthinkable, but I have known of feeble-minded children who have received less favour and consideration in their own homes than would be accorded to a stray dog or an intruding cat.

The other class of parent is the one who bestows a pitying love upon the child that results in blindness to the best interests of the child. In an agonizing desire to atone to the child, for the terrible misfortune that has fallen on its innocent head, with some thought perhaps of expiating that which should never have been, the child is surrounded with a care that smothers every chance of development, that crushes every feeble strength of the mental life, that indulges desires that are unreasoning and tendencies that belong only to the less human side of humanity, and that which might have been nearly restored is forever marred, and he who might have lived a happily useful even if not an independent life, is condemned to drag through existence a burden to himself and others.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

Let us consider also the factor of ignorance in dealing with feeble-minded children in their own homes. We have a little boy who has lately begun to indulge in reminiscences of his past life. His revelations have shown us clearly what harm can be done a child by servants who have no other weapon of discipline to hand, but threats and attempts to quiet a child into good behaviour through fear. Threats that a normal child might have laughed at, assumed terrible reality to this poor child, and terror has been his portion day and night. Among other threats he had been told he was going to be cut in pieces ! Can you imagine what that meant to a child with an already too vivid imagination unhindered by the power of reasoning. It has taken nine months amidst new and different surroundings, in the tranquil and soothing atmosphere of the Children's House with every assurance of care and protection, to bring this child to the place where he can so much as mention some of his fears. His shattered nervous system proclaims what these fears meant to him. And this is the child of wealthy parents, willing to lavish any care on their child that money could procure, yet unable to screen him against the assaults of ignorance.

The same trouble exists for the defective child who finds himself a captive in a school for normal children. It is not that the child is surrounded by cruel companions, the normal child is not cruel he is merely thoughtless and being quick to find out the weakness of the other considers it legitimate sport to avail himself of the opening given at every turn by his feeble-minded companion. " I am not mad ! I am not mad ! " a feeble-minded child has said to me over and over again in passionate tones. Can you guess where it first learnt the use of such a term ? The parents had tried to keep the child in an ordinary school.

I have tried to show how out of place the feeble-minded child is among normal children. We must remember, however, that the stress is not to be laid on the feeble-minded child alone, but that normal children suffer and suffer considerably from constant association with defective children, and that if it is important for the sake of the defective child that he be removed from close constant with normal children, it is just as important, perhaps even more important for the sake of the normal children, that the subnormal and abnormal child should be removed from their midst. As for any benefit that the feeble-minded child may be supposed to receive from the course of study in an ordinary school—it is so questionable that it may be disregarded altogether. Ordinary methods of teaching cannot touch the feeble-minded child, and the hopelessness of trying to compete with normal children soon crushes any mental activity there might have been.

So we return to the point we made before that all feeble-minded children should be placed in Homes and special Schools.

It might be contended that it will be a difficult matter to sift out such children especially those who are less pronounced in type—from the ordinary schools. As long as parents refuse to acknowledge that their children are defective, and in the absence of any kind of legislation to meet the case—it must be remembered here that I am speaking for India, and the state of things that exists in India—the difficulty is certainly a serious one. The only present solution is for the schools to take the initiative backed up by the Educational Departments of their various Governments. It is open also to the various Educational Departments of Government to take upon themselves authority to issue instructions to the schools to

CSL

refuse feeble-minded children, and to insist that those already admitted should be withdrawn, and in the case of children over whom the schools have right of guardianship, to see to it, that they are transferred to the Institution to which they rightly belong.

The importance of removing feeble-minded children to a special place of training has already been explained. It is to meet this, and some other needs of which you will hear presently, that The Children's House, Kurseong, has been called into existence, but it lies now with the Schools to awake to a sense of their responsibility in this matter, and by co-operating with those concerned to secure both their own welfare and the welfare of these unfortunate children.

A protest will probably be made on the score of its being a difficult matter for the ordinary teacher to pass judgment in a question that involves such serious issues for the child concerned. To lessen the responsibility as far as possible, accurate methods of testing will be called for. Various processes are employed, but I should not vouch for any of them without the personal element. According to one method, sets of questions are graded according to the general knowledge a child should possess at a certain age, and the speed and accuracy with which they are answered, and certain instructions carried out, are considered important indications. I have gone over such tests many a time, but I have always had my doubts—very private doubts of course—as to how I should fare myself were I being put through an examination. I certainly know the King's name, and on most occasions the day of the week, but I prefer to maintain an attitude of reserve towards most of the question methods. It was a great consolation to me to learn that

CSL

a noted psychologist had been tested by a friend according to one of the question methods, and had failed to obtain a pass for a normal child of ten.

Nevertheless it is the teacher in the school who can be the greatest help in placing the feeble-minded child. Every child who seems out of place among the others, who shuns companionship, who does not know how to play, whose work falls far below the average, who is conspicuous for want of attention and power of concentration, acquiring information with great difficulty, or quickly losing what it has acquired, incapable of copying movements or of using its hands like the other children, unusually restless and nervous, or on the other hand too apathetic, should be under suspicion as a candidate for a special school, and a medical examination would probably fill in the missing points. I have used the terms " under suspicion " in no adverse sense. It must be remembered that to send a child to an Institution such as The Children's House, Kurseong, is not condemning it to penal servitude for life, but in many cases saving it for a life of service in the community. The greatest kindness that can be done an unusually backward child is to send it to a special School where its case can receive the particular skilled attention it demands. The greatest aim of such an institution is to restore as far as possible to the normal, and there is rejoicing that is hard to describe when the door opens for an inmate to pass out, back to the world where his heritage lies. Every precaution is taken to make such a return easy and to see to it that no stigma of having been in such an Institution follows the pupil out into the world.

In dealing with my subject I have mentioned The Children's House, Kurseong, because it is at present the only attempt to handle the terrible and difficult question of mental deficiency and it may not be amiss here to give some further information regarding this Institution. I quote from the prospectus :—" The Children's House, Kurseong, is a special School for the teaching and training of children, who through some mental defect, are unable to benefit by the course in an ordinary School, or compete with normal children.

Such children are divided into two classes :—

(*a*) Children with some marked mental defect.
(*b*) Children who are merely unusually backward.

The aim in each case is to restore as far as possible to the normal.

Everything possible is done to overcome the defect, but where complete restoration is not likely, the mental powers are called out as far as possible, and a training is given in an art or a handicraft according to individual ability, as a means of leading a useful and therefore a happy life, and also of helping towards self-support.

In the case of abnormally backward children, the aim is to develop their powers by the use of special methods till a normal standard is attained.

Special exercises, message, and medical gymnastics are applied as necessary.

The work is carried on according to the latest scientific methods. The teaching is based on thorough courses in Sense Training. Each child is carefully examined, tested and studied, and a special course is drawn up to suit the individual needs of each child. The keenest sense, and the one in which the child responds most readily is made the point of beginning in teaching. For instance, if a child responds most readily along the line of hearing, even numbers work would be carried out by sound, as when

GSL

strokes on a small gong are used to represent numbers instead of visual material.

A great deal of apparatus is used for sense training. Pieces of apparatus are specially constructed for individual children when necessary.

The health of the children is carefully watched.

Charts are kept for each child. The diet is prescribed according to the special requirements of the children.

The staff consists of specially selected and trained teachers, and hospital trained nurses.

The children are never alone but are under constant supervision.

The Institution of course remains open all the year round.

It is a pity that it is not more generally realized what a very great deal can be done for mentally defective children under special training, in an environment suited to their needs, and among those who understand them. This has been demonstrated in The Children's House, where remarkable results have been obtained, though the work has only been two years in existence, and the number of pupils has been small.

In contemplating the inauguration of the Children's House, two courses lay before us :—one was to wait till it was possible to open the work on a large scale and to ventilate the idea in the meanwhile ; the other was to make a small beginning and to use such work as we had as an object lesson.

We thought it wisest to choose the latter course, but though the beginning has been small, the end in view is a very large one, so large, that it proposes to embrace in time all the deficient children of the communities classed as European in India.

GSL

Our aim goes yet further, and reaches out to the vision of a colony for adults who have passed through the school period in the Children's House, but being unfit to manage their own affairs out in the world may under suitable safe guardianship lead happy and profitable lives in an industrial colony. We already have two children who will always be our wards, and a third is about to be added.

So much for the future. At present we are confining our energies to the requirements of each year, expanding as the need arises, that is as cases seek admission. A very much larger work will be done this year, and every effort is being made to refuse no suitable applicants. The future has been provided for in so far that the estate which belongs to the work offers possibilities for all future expansion.

As to the work which has already been done time fails, else I should describe the steps by which, a child who had never spoken has acquired a vocabulary of over two hundred words, and of how she was so overcome on the wonderful morning when she first realized that the written symbols c-u-p stood for the article by showing "cup" and that she could obtain the article by showing the written word—that she could only laugh and cry. This child was born normal but met with a terrible accident in infancy.

I should tell you of how our Doll who came condemned by a school, as one who would never get a letter of the alphabet, is to-day reading, and also writing a beautiful script, of how she is doing elaborate needlework, and can prepare and cook some simple dishes and puddings.

I should tell you of how a miserable and morose child, a very Ishmaelite among children has learnt to laugh and be happy and to love. These are not wonders, though results often come so suddenly, after months of working seemingly in the dark, that even to us they appear as miracles, but once the outcome of the right environment a calm and happy life, sympathy and understanding, and methods of instruction suited to the ability of the individual child, the special ground of appeal in each child being used as the starting point.

Before we pass on I should like to add a few words as to the encouragement we have met with in many directions, and the interest that has been taken in the work of the Children's House by those who have come to know of its existence.

From the day it opened we have received the sympathy and help of the Educational Department of the Government of Bengal. The Children's House was speedily recognized as a Government Aided School and the Director of Public Instruction has kept in touch with the institution and permitted us to feel assured of his interest in the work.

As you may perhaps realize, it needed some courage to step out alone into pioneer work of this kind, work that was quite unknown in India, and amidst conditions that I had no chance to fathom beforehand. I was alone and unsupported, and I wonder sometimes whether my courage would have held out, had it not been for the sympathy, the great encouragement, the co-operation in every possible direction, the sound judgment and advice of one who himself had entered the field of Education as one who gives himself for a cause, and who spends himself in that cause with a rare enthusiasm and earnestness, who knows what it is to face difficulties and therefore understands—I refer to Mr. Alfred Mercer, the Inspector of European Schools in Bengal, to whom The Children's House will always owe a debt of gratitude.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA

GSL

A few minutes ago, I mentioned a colony for adults as one of our ideals. Do we need to wonder why this should be considered an ideal ? Is it ideal that men and women should be removed from contact with the free members of the community, and pass all their lives under guardianship, deprived of the right to order their lives and come and go at will ? Listen ! About a hundred and fifty years ago, a man of an intellectual and honoured family, a man who had so far lived a clean and respectable life had a lapse during which period he contracted an alliance with a feeble-minded woman. To the results of that union have been traced twelve hundred criminals, vagabonds, vagrants, and feeble-minded persons.

Later this man recovered his moral balance and married into a respectable and healthy family. To-day he has three hundred descendants from the second union holding honourable positions in life.

Two generations ago, a man married into a family in which feeble-mindedness existed. Of the children of this marriage one is an epileptic and a moral imbecile. Two have insane temper, one has a cleft palate. Of the grandchildren one is an idiot, one is erratic, one has begun to show signs of mental degeneracy, and one is an epileptic. The youngest is a physical weakling with an uncontrolled temper.

We provide for the insane, while the feeble-minded person wanders at large through the community. Those who deal with figures in such cases as those quoted, alone have come to understand that the feeble-minded boy and girl are three times more of a nuisance to the community than the ordinary lunatic.

Dr. Goddard of Vineland, New Jersey, states that dangerous as the feeble-minded boy at large may prove

CSL

to be, the feeble-minded girl is vastly more dangerous to the community, and gives as his reason for this statement that the heredity of feeble-mindedness is strongest from the feeble-minded woman. It has also been proved that the feeble-minded woman is twice as prolific as the normal woman. One authority goes so far as to make the proportion four times as great. This may be accounted for by the fact that the feeble-minded woman is unable to protect herself, and partly the fact that she is insensible to moral restraints or regard for consequences. It has been stated by one authority that over 60 per cent. of those who like the life of shame are feeble-minded. Not only do feeble-minded person beget numerous children, but these children are usually of a worse type of degeneracy than their parents, and if both parents happen to be affected the results are indeed terrible.

Is this not therefore sufficient reason to justify the removal of deficient and feeble-minded persons from the community ? As for the feeble-minded child, apart from the question of the community and the right of the other members of the family to be protected from the restrictions and harmful influence of his presence, has he not the right in common with every normal child to receive as much education as he can and since such education can only be open to him in places specially adapted to his needs should he not therefore be removed to such a place ?

The case for the removal of all feeble-minded persons from the community is a strong one. As regards adults—that the race might be protected. As regards children—that they might be protected and that every door of hope be opened to them.

GOVERNMENT OF INDIA · MINISTRY OF CULTURE

CSL

If there is any need to further convince ourselves on the point of special provision being necessary for all deficient and defective children and persons, we might ask the question is Mental Deficiency increasing ?

Unfortunately no figures are obtainable for India, but those interested will tell you that of late years they have come across more feeble-minded children than ever before, a statement of little use where accurate information is sought in the way of figures.

The statement that recently I have come in contact with four feeble-minded girls who have married and are all bearing children is slightly more convincing—but facts against which there are no arguments are hard to obtain if they must necessarily be in the form of figures. And yet the answer to the question is yes, Mental Deficiency is increasing, because conditions make for increase.

Because nothing is being done to locate and localize the evil.

Because in the absence of any legislation in this matter feeble-minded persons are left free to intermingle with the community, to marry—and that they do marry we know, to marry and bear children in larger numbers than others, and that there is no authority to bar such a marriage, no doctor who may prevent such a marriage by a certificate of unfitness, no judge who may declare such a marriage invalid, no court in which it can be annulled.

And what is more—of all mental defectives, the one who is the greatest menace to society, the greatest danger to the community, the greatest plague spot in the corporate body—the Moral Imbecile—is the one most sheltered by the law because he is usually able to take his place in the same form at school as others of his age and

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

is sometimes even more brilliant than the average in certain directions. And because of this, no matter what his other characteristics and tendencies may reveal, there is no one who may dare advocate his removal to a place of safety for himself and others till he has come into direct collision with the established law and been guilty of some unusual crime.

And because these things are so, and we are no longer unaware of the laws of hereditary transmission we know that Mental Degeneracy is increasing.

Were I not dealing with the question of Mental Deficiency as regards India only, I should quote figures for the United States, Canada or Great Britain, and other countries that would shake us out of any idea we might still be cherishing that the question is not so important a one after all. Alarm has been caused in more than one direction by the facts revealed by recent figures, figures that not only tell of the extent of the danger, but of its rapid growth.

That unchecked the evil must grow we all know, let us then do our best to take the matter in hand while it is still—fortunate for us—capable of being limited here in India, and as we turn our attention again to the lonely and pathetic figure of the defective child quote Dr. Saleeby who says, " May we not indeed in this, as in much other philanthropic work which tends to soften the asperities of Nature's laws, endeavour to follow humbly in the footsteps of Him of whom it was foretold that ' A bruised reed shall He not break, and the smoking of flax shall He not quench ? ' "

On the walls of The Children's House, we have a text, and looking at it, our hearts grow braver as we look for-

CSL

ward to the touch of dawn across the dark and shrouded future. The Text is—

"And God said, Let there be light."

"The Psychology of Child Life."

By Miss M. N. Holmer, M.A.

The subject proposed for my talk is so wide, that the only possible course is to take some few characteristics of the mind found in all children, and see what practical ideas—*i.e.*, ideas useable in the life of each of us—we can strike out between us.

The human mind develops gradually, and many of its early activities are instinctive. But *instincts*, we all know are soon hidden or modified in man, as a result of "civilisation": let us look for some of them in children, where they show more plainly and see how we may help or harm their development.

One of the earliest instincts shown by the little child we may call Trust: the infant turns "instinctively" we say, to its Mother's breast for nourishment;—the little boy of 3 or 4, if unhampered by fear, clasps the hand of the friendly visitor and tells her that he has got his new shoes on: a nice little person of 10 smiled at me in the train last night and was prepared to tell me she was going to School;—and so forth. The Psychology books will tell you that this behaviour is due to two instincts, Negative and Positive Self-feeling, but we may call it Trust or Trustfulness, and see in it a natural development from the child's omnipotence (in the womb) where all its needs were supplied before it knew them, through a cherished and sheltered infancy and childhood in which the attempt is made to meet every need at least when the child is conscious of it and before the point of keen *want*. For in India, parents,

CSL

Indian or English, alike seem to be peculiarly tender and devoted : I have never seen relations of mutual love, of self-effacing care in the parent and absolute trust in the child, more markedly than here : and this comes, we might say " by Nature "—the poorest *cooli-log* whom we pass as we go through the villages, or in city *bustees*, show it as clearly as the most thoughtful and cultured mothers of our acquaintance. Surely then all that is needed in such cases is a continuance of this beautiful relationship ? " The child will surely grow as naturally as a flower in sunshine, the human virtues unfolding and developing without effort "—Ah but will they ?—havn't we all seen how a charming baby becomes a tyrannical child, if he has never had his will trained to submission to circumstances : how the child who is well mannered and gentle in his home may become grumbly and grasping elsewhere where his comfort is not made the first aim : how the college student who is so hardworking and well behaved while all he has to do is to observe a Time Table, is very unwilling to put himself out for the sake of a sick comrade or to take an unpopular stand for right-dealing against " *dustur* " or catch-phrases like " patriotism " or " public spirit." Plants need rain as well as sunshine—*hardy* ones need cold and wind as well—and not to labour my metaphor, children who have never felt *anger* don't grow strength of will to resist difficulty, nor do children who are ignorant of fear develop a useful understanding of relative values. Take examples :—a child who has always had his hunger supplied by his mother is to be weaned : and at first resists the change with fury. Is the mother to give in and go on feeding the great boy to his 18th month or even horrible to see, his 2nd birthday as I have seen in India ? On the contrary—he should rather know

GSL

the pain of hunger or the fear of pain than be allowed on the one hand to be a drag on his mother's strength and on the other to grow tyrannical. *But* the pain should be slight and soon over, and rather of the character of a natural consequence—*as* the hunger due to refusal of food is—than of human will shown in angry expression of face and rough loud voice : otherwise clearly further *trust* will be hindered and the *fear* will grow from the slight measure needed into a paralysing terror. Take another instance a little child is being trained in personal hygiene, and refusal to make water at the proper time and place is dealt with by some slight expression of disapproval—" Naughty baby "—with a corresponding expression—and he comes to associate *this* unpleasant experience—mother's " cross face "—with *not* doing his duty promptly, and a pleasant smile and " Good clean baby ! " with the convenient hygienic behaviour. But *over-severity* defeats its own end. The child who is smacked or fiercely scolded, for withholding water or for the reverse fault of ' wetting ' may very well develop nervous difficulties in connection with " making water " that will long outlast the period of babyhood ; and worse still—the nervous difficulties may be transferred from the field of *physical*, to that of *mental*, life. For the impress of fear, in connection with the training of early childhood, is frequently developed in the subconsciousness of the child out of all proportion to the result appearing *in consciousness* so that the child who has apparently suffered no ill-effects from severity in early childhood, may yet have hidden terrors which will have painful effects under conditions of strain. To quote an instance : a child otherwise wisely and tenderly matured, was once whipped, *not* severely, by an aunt during a short stay away from her mother. No harm resulted to the relation between the

GSL

aunt and niece, which were always most affectionate : but a previous slight tendency to *constipation* became, from this time, converted into a very troublesome condition, lasting for many years of chronic costiveness; *and* at the same time and varying *with* the costiveness, a change of temper appeared, from eveness to irritability. The relation has not in this case been fully worked out psychologically : it is merely an impression of mine that it obtains.

We have collected now three important *Instincts* to think about—or rather, *Emotional Aspects* of three Instincts—

(1) *Trustfulness*, the germ of Love, the Child's response to the parent, *Tender Emotion*, and made up partly of *Negative* Self-feeling—" How little and weak I am "—partly of *Positive* Self-feeling—" Every baby is a KING " *The instinctive activity* corresponding is *clinging*, isn't it ?—Just as the natural expression of the *parent's* tender protective feeling is, *folding in her arms*.

(2) *Fear*, the germ of *Discipline*—the response to the curb—the check to the " will to power "—Now the natural *activity* connected with *Fear* is *Flight* or *Concealment* : to take two nearly related animals—the startled *Hare* crouches, where the *Rabbit* leaps away.

(3) *Anger*, the starting point for the development of *Courage*. *Its* activities we all know—the moral poets are never weary of decrying them.

" Let *dogs* delight to *bark and bite*—
It is *their* nature to " !—and

CSL

“ Then we may stay the *hasty blow*
Then we may check the *angry word.*”—

Barks and Bites for puppies, *angry words and last blows* (or *vice versâ*) for little children, are realised as natural expressions of *the checked will ;* and this is indeed true where this will is strong enough to react vigorously ; whereas if the *check* if accompanied with an excess of *negative self-feeling* then *fear* or sorrow is substituted for anger—

But I think the moralists are a little reckless in wanting Anger rooted out too drastically ; we may weaken the moral fibre if we try to force the growth of that paragon, a child who never “ shows temper.”

Let us now consider how the interaction of these three *Instincts* with their corresponding *Emotions* may be manipulated by the parent (or any educator it may be, bare *living* that does the manipulating).

All is well *so far* with the child whose pre-natal and early encounters with the world have been of the nature to exalt *Trustfulness* to the place of a principle of action that *works:* safely and successfully sheltered and matured in the womb—normally cared for, in the early days of infancy : the babe should need at first little stimulance from the two sterner guides.

But *the sense of deficiency* is bound to make itself felt soon, even in the most fortunate of babes, and many are the possible causes for I *want,* “ and can’t *have* ” to be an early experience. Perhaps for some reason, the mother’s milk must be superseded—sorest of early trials ; or a chill is caught and digestive trouble results—or, even in cases where no such ill-luck befall training in *when* to feed—*when* to sleep—*when* and where and how to “ make water,” etc.,—must come in its due course,—The Baby discovers that he is no longer King—he is a *subject* in a Kingdom where there are *laws*—and well for him if these laws are early known to be *real* laws, not mere changeable caprices. This then is the point at which the parent's responsibility comes in—to watch headfully at all points where *Fear* or *Anger* may be the child's appropriate reaction to the circumstances of life, and so to control the conditions, that the stimulus may not be excessive and so fall too heavily on the young and imperfectly adapted organism.

It is easier, alas, to select examples of the *wrong* way of training, than the *right*—To give one of the wrong use and Training of *Fear* :—a nervous child of 3 or 4 runs screaming away from a big, reliably sweet tempered dog. Two wrong modes may be adopted—(1) “ Scold him for being a coward ”. (2) Allow him to continue in this state of fear. One right way exists—Sympathise breezily and briefly,—agree that the dog is big and has long sharp teeth, and that one *must* be careful about dogs in India—but “ *This* old fellow is a great friend of mine ! see what an affectionate old silly he is ! he'll let *Me* play with his mouth or his ears, but of course *you* mustn't, but he'd *shake hands with you* if you'd like ”—Make it appear, that is, that while Fear and Flight *may* be sensible ways of reacting to a strange dog (they *are*, in India at least), we don't *just* run away without stopping to think *why*. But *Fear* is sometimes even directly invoked and encouraged in training children who are found to be troublesome—disobedient, “ lying,” “ thieving ” *or* belated in acquiring self-control in matters of personal hygiene, or his manners at table, or in being willing to give and take with other children—My friend *Bob* at 6 years old was highly strung and a sleep-walker : in his sleep, he moved a vase which he had been forbidden to touch, and of course, was perfectly, truthful in denying all knowledge of it when accused. *But* his mother corrected him of untruth, on circumstantial evidence: and Bob's "nerves" to-day, which in a girl would be called "hysteria," are alas, a standing monument to that, among other, instance of violent threatening, probably, shaking if not blows. *Ethel*, again, now over 30, has only recently got over a condition of spasm of the bladder sphincter which has among other results, caused a permanently enlarged bladder; this again reacting by over-stimulation of the vesical centre, has caused emotional and nervous troubles which have more than once gone near to wreck her life. Her mother, who thinks she loves her devotedly, would fail to recognise any relation between Ethel's tragic love-story and "unreasonable irritability" and "absolute self-centredness" and the drastic whipping and "sending to Coventry" by which she trained a baby of 18 months to "good manners," poor mite!

Worst of all perhaps in the attempt to train *Anger* by "breaking the spirit" David a high spirited hot tempered Keltic lad full of fire, a keen athlete, by temperament a passionate lover of a devoted father; condemned to a narrow effortless life in a little country village, because at each crisis of his life "*the lack of vitality*" which so many Kelts — and Indians — suffer from, bade him take *the easier road the smaller risks.* Why was he lacking in vitality? He had plenty of physical energy and endurance, admirable brains, strong emotions. As I believe, his lack was due to the piteous wastage of energy that went to the superficial "self-control" from which his self-styled "horrible temper" admittedly rarely escaped. *But* if the "severe whipping a day, if necessary" which my poor friend admired his father for having given him "to make me curb my devilish temper" had had this result—

CSL

they had also cut down his working capital of energy to a point too small to allow a safe margin for risks. The power to be angry is *good*, the Master of Men who chose His workmen from among the mixed crowd of fishermen, artisans, clerks and agriculturalists who were his audience ‘ chose two surnamed Boanerges, that is Sons of Thunder,” —creatures of explosive temper who desired to “ call down fire,” egoists, who desired to commandeer the “ best seats in His Kingdom ” pushing in ahead of all others ; these He “ chose ” for He “ Knowing what was in man ” knew that while you can make a statue from a marble block even though it be by “ blows and biting sculpture,” you can't make a man strong to withstand the fury of the mob and outcasting by his own people, from a passive “ peace at any price ” spirit.

So while, we cherish the *Trustfulness* of our children, we realise that causes of *Fear* and *Anger* must arise, and may even be for their best training for the life that is to be theirs, but meanwhile let us see to it that *Fear* does not grow to such an extent as to paralyse, and equally that the curb out on *Anger*, is not so strict as to throttle the growth of vigor of personality. We, parents, teachers, stand for God in the meanwhile to our children, we need to be watchful lest through lack of comprehension or through yielding to our own undisciplined instincts of fear or anger, we force hardship out of season upon the tender shoots ; but we equally need to discipline our love, lest we should weaken healthy development by sheltering unduly from strength-giving wind and cold. Let us by all means cuddle our babies—in reason ; but let us also look forward to their growing up into boys and girls, and even men and women, fit to buffet the world and enjoy its buffeting. Let us aim at treating them as the God of the nations has

GSL

treated His Children : as Dr. Williams White of Washington says " The Great God-Father reaches out and takes the hand of weak helpless man in his infancy and supports him as he learns to walk, keeping always in front of him and encouraging him to keep trying ; and as from tottering, he is able to stand, and then to take a step, and then another, *the hand is gradually withdrawn* though always near."

Lecture to Health workers and others interested on Venereal Disease.

By Lieutenant-Colonel A. Frost, R.A.M.C.

I would ask you to bear with me while I endeavour to bring a difficult subject before you, this afternoon. This Exhibition is intended to give you some idea of how the health of the mothers and children of India might benefit by the application of Western methods, and how in this way the future fathers and mothers of the nation, will be healthier and stronger.

You have been told some startling figures about the high mortality amongst the children, now I have to tell you something more, something of the causes whereby a number of children are not born at all, and what is even worse, why when they are born they die early, or are blind and maimed for the rest of their lives. Why women who were healthy, strong, and enjoyed life, become sick and ailing after their first baby was born, or even before it was born.

I am going to talk to you about the diseases which are known as Venereal diseases.

Though these diseases were known to exist all over the world for many hundreds of years, and the doctors in every country knew what harm these were doing, the attitude

CSL

of the various peoples was to ignore them—they were not subjects to be spoken of or even hinted at. But as the world became more enlightened and education more widespread, and it was spoken of by medical men to their friends outside the profession, it was felt that it was time to open the eyes of the public at large to the conditions which faced them. Eight years ago in England some public spirited men agitated for an enquiry, but there was great opposition. In 1913 however, a Royal Commission was appointed to enquire into Venereal diseases and they sat for three years collecting facts. Their report awakened England to the necessity of taking action, and stimulated all other nations in Europe to open their eyes and look the facts in the face.

Now, I am going to ask you to look the same facts in the face. I would ask you to believe me when I say that the same state of affairs exist here in India as in Western Countries. Ask your medical men and women they know. I have asked many of them within the last few days and they have confirmed me of the truth of what I have just told you. The cities of India suffer as much, at the least, as do the cities of the West, and the same classes are infected with venereal diseases.

Owing to the misconceptions as to what exactly these diseases are, I shall later briefly speak of them, and I shall also in a few words explain what results follow them. I hope to bring home to you how intimately they are bound up with this (Maternity and Infant Welfare) work.

The first step in any progressive movement must be the spread of knowledge. After that comes action, based on the knowledge gained. Now, in these particular diseases accurate knowledge is, I am afraid, much needed in India, and before any action can be taken to reduce

GSL

the amount of disease a vast amount of work has to be done in bringing to the knowledge of all what the problem is which has to be dealt with.

I hope at the time at our disposal to do this.

The importance of the diseases grouped under the head venereal has ceased to be merely a medical question—it is now a national one. It is more than this, it is even an international question. Each nation now has established committees for combating these diseases, and each nation's experience is made use of by the others in devising means to reduce the ravages which are caused by venereal disease. It is not possible to compute the total loss to a nation by veneral diseases, in sickness, in the lessened power of production of wealth, in deaths, in children born dead, and in children which are not born.

There are three forms of the diseases. One may be dismissed at once, the chancroid, or soft sore, by saying that it is only a local disease and not a blood disease, and its only importance lies in the fact that its appearance is very like the first appearance of syphilis. Both are sores, but the chancroid is not followed by any other manifestations. On account of this similarity it has to be carefully distinguished from syphilis by tests, and is always under suspicion until some months have elapsed from the time of onset. It may be, in addition, an accompanying disease to syphilis, both being implanted at the same time Now the so-called soft sore usually appears within a week of the risk of infection being run, while the hard sore which is the first sign of syphilis does not appear until two weeks later, and the ulcer which was soft at first, may now become hard. The syphilitic sore is usually hard, but it may not be, and further it may be so slight, so short lasting that it may pass unnoticed, especially amongst women.

In women also it may not be on the surface, but hidden, and no knowledge of its existence will be obtained till the blood has become invaded by the disease, the signs of which I shall shortly describe. Syphilis, as has just been said, begins in most cases as a small sore which gradually becomes harder and larger. But for a month from the time that the disease has been contracted, nothing is seen of the disease. This is called the incubation period. During this month a big fight is taking place quietly between the organism which is the cause of the disease and the body.

A very small organism, like a corkscrew in shape, finds its way into the body through a scratch or a break in the skin or mucous membrane—it may be on the genital region, or the lip, or on the finger, anywhere on the surface of the body which has come in contact with a syphilitic open sore on the body of a person who has the disease in an acute state. Having gained entrance into the body of the now infected man or woman, or child, it has a hard fight for existence. It has the power, however, of defending itself against the natural power of the human body to destroy its enemies, in that it is able to kill the tissues around it by poisoning them. For a month the fight goes on, and invariably the organism wins, and the battlefield is marked by a hard punched out ulcer. From this on, the march of the disease is rapid. The blood stream is invaded, and every tissue and organ of the body is infested with millions and millions of these minute spirals, one/two thousandth of an inch in length and one hundredth thousandth of an inch in thickness, which produce a poison that reduces the vitality of all organs and tissues of the body. The signs of the disease in its later manifestations are only the signs of this poisoning as it

CSL

affects various parts of the body. I shall now briefl refer to the most prominent signs of the generalized disease which everyone should know. Skin rashes are common. Of course, not every skin rash means that the person has got syphilis, but by going to a medical man or woman to get a skin rash seen to, then if it is syphilis much valuable time may be saved in the subsequent treatment of the disease. Sores on the lips and in the mouth may appear, and these are some of the most dangerous signs of the disease, as they are teeming with the organism and it is through these lip and mouth sores that much of the innocent contraction of the disease, by the medium of infected cups, etc., take place. In Russian villages syphilis is often brought home by soldiers and by men from the towns, and in a short time most of the inhabitants are infected. The disease runs through the village like small-pox or measles due to the ignorance of the inhabitants of the very contagious nature of the disease. I am sure that if the highly contagious nature of this disease were known by both men and women that a good many thousands would be saved from it. For not alone is the ignorance of those innocently infected a cause of the spread of the disease, but also and much more frequently is the ignorance of those who have contracted the diseases through an irregular sexual life. These may furthermore be directly transmitted from mother to child before the child is born. The poison may be so great that the child is born dead, or if the mother has the disease some years the child may be born alive but dies in a few weeks or months, killed by syphilis. Later still the child may survive and grow up with unmistakable signs of the infection contracted from the mother. This is known as congenital syphilis. You may know such a child by the deformed teeth, bulging forehead, sunken bridge of the nose, and by an undersized body; many of them are mentally deficient. Syphilis is ranked as about the fourth of the killing diseases of the world, perhaps not so high as this in India, not because it is a less killing disease but because there are others more fatal. It works slowly for many years, hardening the tissues, the organs and the blood vessels of the body until they are unable to carry on their work. A number of deaths are directly due to syphilis, but many more, occur ten or twenty years after the beginning. A certain proportion of deaths from heart disease, from palsies, from blood vessels bursting, from early decay are the result of the poison of syphilis.

I would call it a misfortune that this disease is a painless one, for if it were not there would be more thorough treatment. What usually happens is that after a few weeks of treatment the outward signs disappear, but that does not mean a cure. Months and often years of treatment is required before the last of the organisms are killed.

Years after imperfect treatment the disease may break out and in a worse form, for the germs are in the blood, and can be proved to be there by blood tests. Before either the man or woman who is infected with syphilis can be declared fit to become fathers or mothers of healthy children, tests should be done to prove that a cure has been obtained.

The other important disease of this group is called by various names and called by the medical profession gonorrhœa. It is caused by a small organism, called the gonococcus, which was discovered a generation ago. This disease is almost as old as mankind, and has been looked on with a lightness and almost treated with a contempt which most certainly is not deserved. More, I have no hesitation in stating that there is no other disease which can compare with this as a cause of misery and invalidism amongst women. There is no more difficult disease to cure when it becomes chronic, and even to be sure that the organisms which cause it are completely destroyed is an equally hard question to decide. In women it is nearly always chronic, for the first signs of the disease are usually so very slight that it passes unnoticed. As women are usually infected innocently, they are not aware that they are contagious and their children may become infected from their hands, or clothes which may be infected with the discharge. Or the child born to an infected mother may get some of the organisms into its eyes as the baby comes into the world, and blindness results.

Half the blind **scarred** eyes one sees are due to gonorrhœa; I do not refer here to cases of cataract amongst older people, some are contracted in adult life, but most of them are blind from a few days or a week after birth. And it is such an easy thing to prevent this loss of sight of the newly born, as a few drops of drug made from silver, called silver nitrate, put into the eyes as soon as a child is born, or on the very smallest sign of redness of the eyes will save the sight of the child. What usually happens is that a few days after birth the eyes appear slightly red, then the lids become swollen and at the end of a week the child's eyes are pouring matter from between the lids, the centre of the eye becomes ulcerated which leaves permanent white scars over the front of the eye and sight cannot ever again be restored. Now if the mother had only taken notice of the slight trouble which she let pass as something which is merely part of the lot of woman to suffer, she might have learned what the cause

CSL

was and be prepared to save her child's sight when it was born.

That is the child's early introduction to gonorrhœa. Often more terrible in its effects than a baby's contact with syphilis which though it kills many of them, does not if they do survive, lead to a life of blank darkness.

The woman's part may not be any less disastrous, if she has contracted this disease. As I have said she may not know that she has the disease at all. She notices that she has been gradually become more and more subject to internal pains, that it is harder to carry out her ordinary duties of life in her household, that she is always exhausted after even a little exertion. In other words she becomes a chronic invalid. Perhaps she first noticed that she did not recover from the last time that a child was born, or it may be that it was after her first child's birth, or it may even have begun a few weeks after her marriage.

What is the tale or the history of which the woman's invalidism is the sequel? The usual story is that the husband contracted gonorrhœa in his youth, before he got married, and too often even after he got married. He does not get it cured, or it has become dormant and he may believe that the disease has been cured, and then he conveys the disease to his wife. In her also it may become dormant until the birth of her first child, and she will tell you that she dates all her troubles from a short time after that event. Untreated this disease may last a lifetime in either the man or the woman, with or without accidents or complications, but this is not common in either sex. Sooner or later the disease flares up with crippling results. Little girls in such a household may run risks of being infected from living in close contact with the parents, and be a means of spreading the disease to

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

other little girls. In children, especially little girls infected in this way it is very hard to cure the disease.

All this is due to ignorance. It is time that the world recognised what is happening. There is a natural shame and dislike to acknowledge the presence of these diseases which are so intimately connected with the private life of the people. I do not think that it would be an exaggeration to say that in India nearly all venereal diseases among **married** women are contracted innocently. An awakening to this fact is necessary all over the country, and adequate means of getting in touch with these cases and treating them made available.

I have very briefly touched on two very important causes of the depreciation of the value of a nation, for a nation's strength and prosperity lies in the health of its people. I shall now give you some figures to show you how much these hidden evils exist,—the extent to which syphilis and gonorrhœa may exist in a community. More exact figures have been obtained in Western countries than is at present possible in India, but from the scanty figures which have been collected owing to the difficulty of obtaining them, I believe that there is more venereal disease in this country than in Europe.

These are the figures collected from several European countries :—

> One person out of every ten have or have had syphilis.
>
> Eighty-five per cent. of women who have got syphilis have contracted it from their husbands.
>
> In Europe ten per cent. of all cases of syphilis are contracted innocently. In India a much higher number, I feel sure, contract the disease without knowing it, nearly all of them women.

CSL

In one city of three or four million inhabitants, eighty per cent. of all men who were examined had got gonorrhœa, and only one man in ten was cured. This was the result of the examination of one thousand consecutive men.

Seventy per cent. of diseases of women met with at women's special hospitals have their origin in venereal diseases.

My experience amongst the poorer classes is that these figures are not less in India than in Europe, rather more, I should say.

When one makes an enquiry about any infectious or contagious disease with a view to stopping or reducing the spread of it, one looks for :—

What is the actual cause of the disease ?

How does it spread and from what source ? For no disease of this nature ever arises of itself, but is given to a person who has not got the disease by one who has, directly or indirectly. There is always one who has got the disease, otherwise the disease would die out.

In venereal disease the organism of both is known.

In looking for the second factor, as the disease is found all over the world, if we look for special people who are more infected than others, we find that one class are the constant source of the disease the reservoir from which fresh cases are constantly being infected—women who live by trading with their sex. These women are infected with venereal diseases to an extent which no other class of the community are. The world may be infected to the extent of one in ten, but the prostitute class suffers, from seventy to ninety out of every hundred, from syphilis or gonorrhœa or both.

This glaring fact must be accepted, *i.e.*, that we know what is the great cause of the spread of these infections; until this is stopped, it is useless to expect any headway to be made in prevention.

A cure, on the other hand, of these diseases must be within the reach of all those who are infected, so that the disease may be stopped from spreading in the family. A certain cure is possible, provided that treatment is begun in the early stages. The organisms of both the venereal diseases are easily killed on the surface of the body, before they have buried themselves in the tissues, possibly up to three hours from the time of infection, disinfectants will catch them up and destroy them. But for women who do not know that they have been infected, this is impossible. This is for those who knowing run the risk, and if done properly would save many a household from these diseases. If this does not succeed, there is another chance for cure left, that is to get the disease treated as soon as ever the first signs appear. Education is therefore essential as a first step in the fight against venereal disease. Education directed in two lines. One, towards a knowledge of what these diseases are, and made known to all classes of society. How they are stopped, how they are cured. No doubt should be left in the minds of those just beginning to take up the responsibilities of manhood as to the very real dangers of an irregular life.

The second line on which education should run is that the prostitute is the worst form of parasite on society, that they are the acknowledged source of all venereal disease, and that they must not be tolerated in any way in their present sphere of life. The world has ineffectually tried to regulate these women's lives, but it has been a failure. The Army in India has given a lead to the rest

GSL

of India and will not allow of the official recognition of them in Cantonments. Another popular error has been proved wrong in America. These women were supposed to be a protection to Society, but since they have been suppressed in the cities the social conditions have been better not worse.

The work of education must naturally fall on parents and teachers.

At present parents are not in a position to give advice to their children, for they do not know themselves what to teach their children, and must first be taught the main points. How to reach the illiterate classes is a great difficulty, except in cities, where the employers of labour could arrange some form of propaganda, such that will call attention to the results of the diseases. At the schools teachers could be given a short syllabus to be explained to children who have come to a sexual age. Much controversy has taken place in the past as to the advisability of speaking to children, or even young adults on these matters, but it all depends how it is put to the young, whether it reacts for good or otherwise. If the present generation learns, there is hope for future generations. Much may not be possible in this generation, but a beginning must be made, and no time is like the present, and the young are growing up.

Supposing that even ten per cent. of the inhabitants of India get venereal disease. With its population of over three hundred millions, one can get some idea of the stupenduous work that attempting to even make a slight impression on the incidence of these diseases will entail, nor can it be done without large expenditure of money. America with one-fifth the population expended in one year twenty lakhs of rupees as a beginning which was also largely increased by private effort. It would require a crore of rupees to accomplish much less than they are doing.

Most of the work in India must necessarily be by lectures or talks, as such a small proportion can read or write. Leaflets can be given to educated people. But there should be an effort at co-ordination of the whole work in each presidency and province, controlled by a responsible authority, otherwise there would be much waste, both of time and money. Employers of labour should assist in this propaganda, and also form schemes for the treatment of their employees, not as a charity but as a sound business transaction.

I would like to call your attention to the excellent example shown by America. Then Government and the large business firms co-operate for the education of their workers and their treatment. In addition there is an association called the American Social Hygiene Association which is willing to assist all who are engaged in anti-venereal measures. Of course for India many alterations in their scheme would be necessary but the principles and methods are capable of being made use of as a basis of similar work in this country.

I would be inclined to add something more to the social side of this large and complicated subject. There is a popular idea that continence is bad for the health of people. That is absolutely untrue. The best known men of the medical profession have publicly and also repeatedly condemned this common error. Continence may be unpleasant to those without self-control, but that is quite a different matter to saying that it causes injury to health.

This fact should be made known to the mothers of sons in India, and should help them to advise and instruct their children, by starting them with one solid truth. Their religious ideals should help them to do the rest of the good work of making their sons grow up to a clean and healthy manhood.

To parents with lower ideals, I am afraid that you will have to fall back on fear as the incentive for them and their children to live clean lives. If the mother knew that her son would live to regret for the remainder of his life a falling away from continence, would she be so little troubled at finding out that he is leading an irregular life ? She does not know, I feel sure, otherwise she would be a mother without feeling, without heart. It must be done, the education of men and women on matters venereal. In the year 1913 in England the subject was very much objected to, when a Royal Commission was suggested. In the year 1919 there exists a National central organisation in London, there are branches of this central Council for combating venereal diseases in over seventy of the largest cities in the United Kingdom, all with the most influential men of these cities acting as members; there are nearly eighty large and representative societies which support and assist in the work of popular education. In the work of actual treatment nearly two hundred hospital centres for treatment of cases have been established.

Bombay has made a start, but in a very small way only, on the English lines. What is wanted is an organisation which will create a public opinion, and guided by what has to be done, and learned in other countries, adopt these to Indian conditions. India has to face this problem, and not let things go on as they are. I hope that all who have come to see this Exhibition will take

CSL

away with them many new ideas, and I would ask you to take away with you one more, that venereal disease, so very intimately connected with the welfare of both children and mothers, has to be fought against and kept out of Indian homes.

One last word, as a guide where first to start, I say "close up the houses in your cities where women live and perpetuate these evils." A social necessity they have been called. No, they are one of the worst enemies of the mother and her child, and for their sake do not be ashamed to tackle this, up to the present, hidden destroyer of the home.

Lecture on "Kindergarten Training."

By Miss C. Gordon, *Teachers College, Saidapet, Madras.*

Mr. Chairman, Ladies and Gentlemen,

I consider it a very great privilege indeed to be invited here all the way from Madras to speak to you about one of the most important branches of child welfare work, namely, the education of the child. It is one of the most hopeful signs of the times that the child is attracting more and more attention from the public at large and it is at last coming to its own. The kind interest taken in the "Child Welfare Exhibition" by the Government is abundant evidence to show that those in authority are not uninfluenced by this wave of feeling; and that they are trying their best to encourage the movement in such a manner that the greatest good may be had from it.

And so it behoves all of us to take some interest in the various systems of educating the child during his early years. One of the most famous systems of education is the "Kindergarten system" which was founded by

Froebel in the early years of the nineteenth century and which is perhaps, at the present day, the most popular of the various educational methods of the world.

It is to this system that I wish to draw your attention to-day.

THE KINDERGARTEN SYSTEM AS APPLIED TO INDIAN CHILDREN.

> " Men may come and Men may go
> But I go on for ever "—

says the Poet of the Brook and surely the same is applicable to the great fundamental principles governing the world. Kingdoms and monarchies may rise and fall, fashions and manners may change, but these principles which form the very foundations of society remain unchanged. Of such is the principle of education in Man. From time immemorial Man has considered it a sacred and solemn duty of his to educate his children in such a way as to enable them to lead the fullest life possible. Hence have arisen in different countries, and in different ages the great ideals of the world,—the Greek ideal of the graceful Athlete, the Roman ideal of the Sturdy warrior, the dogged perseverance of " John Bull," the meditative ideal of the Eastern Saint and so forth. A close examination of all these ideals shows that though the underlying principle is the same it has been considerably modified so as to suit the varying conditions of the nations of the world.

Similarly, with reference to the education of the child, the guiding principles are the same throughout the world. Especially during the past hundred years and more with the rapid strides taken in Science and the application of the Scientific method in every walk of life, the child has

CSL

become an object of reverence and intense study, and it is on the basis of the conclusions arrived at by such methods that the present educational systems rest. The famous system of Dr. Montessori (for the education of defective children), the Wolf Cub Movement of Sir Robert Baden Powell, the Open Air and Play Schools of the United States, the well-known Swedish drill schools and lastly the Kindergarten system founded by Froebel—different though these may be in detail, all of them rest on the broad principles of child nature such as the paramount need for self-activity and self-expression. For,

"Growth is ever an unfolding,
In the Germ the whole doth lie,
Little blossoms upward tending,
Spreading out towards the Sun.
Show the road that we must follow,
Nature's processes are but one."

It would therefore be nothing but an egregious blunder to think of the Kindergarten as a subject like History or Arithmetic, or to devote to it two hours on a time-table, as is actually done in several schools to-day. The fact is, that Kindergarten is not by any means a subject but a system of rational education for the young. The aim of all education has been to draw out the best in the child, *i.e.*, 'to manifest the eternal in the temporal, the infinite in the finite, the Heavenly in the Earthly, the divine in the human.' And the Kindergarten aims at this lofty ideal by following certain proved principles.

The general principles of the Kindergarten is to recognise the individuality of the child, to regard him as a living, growing organism, and as such to furnish him with ample opportunities for self-development, without in any way forcing our own ideas on him. In short, the aim of

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

the Kindergarten is to make the child his own educator under the most favourable conditions. Just as in a garden the plants and flowers are allowed the utmost freedom for growth, the gardener confining himself to preparing the ground, watering the plants and removing the weeds, so also in the human garden (of the Kindergarten) the children are allowed the best opportunities for growth without let or hindrance. In fact, the name Kindergarten itself means the children's garden, thus bringing home to our minds the analogy existing between plants in a garden and the children at school.

This freedom of development is best secured by giving the children the greatest scope for Free Play. For, Play, rightly understood, is the Poetry of life. It does not, in any sense, correspond to the games and recreations of adult life, nor is it rest from toil, as is commonly understood, but the most serious activity in which the child is engaged, the very essence of life for it. In his play the child gives expression to his real self ; and all the while he is learning lessons that will stand him in good stead throughout life. He is learning the great lesson of adapting means to ends, the principle of give and take, and the truth of the maxim 'Play up, Play up and Play the game.' The famous saying of Wellington that the battle of Waterloo was won on the playing fields of Eton is an instance in point. So, the Kindergarten aims at making this natural incentive for play a powerful ally in the education of the child.

Equally great attention is to be bestowed on the somewhat neglected subject of the training of the senses. For, primarily they are the means through which we get all our knowledge of the external world. Time there was when the training of the mind alone was considered neces-

CSL

sary without any reference to the training of the senses; but these ideas are gradually changing and now great emphasis is laid in every educational system on this very necessary work of sense-training. Their eyes must be trained to look at all the things about them in their right perspective, their ears to listen to the varying music of the voices of Nature and of Man and their whole self to respond to the manifold beauties of this wonderful world of ours.

And all this is to be achieved by keeping the child cheerful and active. Bright and airy rooms, beautified by means of good pictures and flowers; the contagious enthusiasm of the teacher himself, the bright surroundings and the happy faces around these are very helpful in creating the active, joyous life of every child in the Kindergarten.

However this might be, the application of these principles in the class-room requires a great deal of tact and intelligence. For instance, there are the time-honoured subjects—Reading, Writing and Arithmetic. One would wonder how these could at all be made interesting. Even here, the intelligent teacher, by making reading and writing a part of Language Training, may use them as a means of Self-expression. He may have, as his powerful ally, the valuable arts of story-telling and Dramatization. There is a general impression abroad that story-telling is only a means of whiling away time; but this is not so. The story—if it is of the right kind—arouses the interest of the child to an extraordinary degree and inspires him with lofty ideals. The child desires to emulate the heroes of whom he is told. And this is nothing new. Even in centuries now long past, it was the tales that were the inspiration of some of the most thrilling chapters in the annals of man. Alexander the Great declared that the lays of the wandering bard (Homer) made him thirst for conquest; and the crusades which re-created Europe by the introduction of Eastern culture and the breaking down of old traditions might never have been undertaken but for tales of defilement of holy places from the lips of Peter the Hermit. And here in India the tales of Sri Ram and Krishna have done more to inspire the heroic strain than anything else. Thus every story rightly told contributes something definite towards the mental, moral and spiritual growth of the child. Besides developing the emotional nature and giving moral and religious instruction, it will intensify the interest in History, Geography and Nature-study; awaken an appreciation of literature, Art and Music; enrich the child's power of discrimination and teach him to differentiate between the ephemeral and the eternal. It will help to eliminate much of what he considers the drudgery of school-life and give him information that will fit him for broad, sympathetic and useful living.

What the child hears about, he likes to read about and to write about. And thus the transition can be gradually made to the more formal lessons in Reading and Writing. To add further to the interests of the children we may make use of the Dramatic Method. By "Dramatization" or the employment of the Dramatic Method we do not mean to train up our children as professional actors. We only wish to make use of that perfectly natural instinct, in children to act, to dramatise, or to reproduce anything that they have seen or heard around them—so that their imagination may be developed and the ideas which they have only dimly comprehended in the oral lesson may be realised. The advantage of this method is that the child is able to project himself into the character of another,

GSL

than which perhaps there is hardly a more important instrument of teaching. If a child is told of some noble action of a hero he is impressed; if he can be shown the hero in action his impression is deepened, but if he be allowed to project himself into the character of that hero, to use the hero's words and to do similar action that impression is enormously multiplied. Thus then, by means of story-telling and dramatization, language training can be made a perennial delight to the children.

The same may be said of Arithmetic although our own memories of "Our Arithmetic" are not of the happiest. In the first place Arithmetic in the Kindergarten is taught in the simpler guise of Number and Space work. The children are allowed to gain their ideas of number as the race gained them, that is, by contact with real things. They are allowed to handle, sort and arrange in groups something convenient such as beads, sticks, etc. They are allowed to play various kinds of games, keep score and in other ways to get a real and delightful idea of 'Number.' They are allowed to measure their tables and chairs in the class-room, to draw plans on a rough scale of their school and playground, to cut out various shapes of various kinds and thus by diverse interesting ways to get a working knowledge of the abstract notions of length, measurement, etc.

Reading, Writing and Arithmetic, although they form an important part of the work in the Kindergarten is not all that is attempted. Self-expression and self-activity find even a greater scope in Handwork and Drawing. Drawing is as natural to a child as speaking or writing and ought to be as carefully treated. A knowledge of Drawing or of the power of perceiving and expressing the meaning of appearances leads to a fuller understanding of the varied forms and colours which surround us. Drawing is really the Reading and Writing of Form and Colour, as it includes the correct seeing and truthful expression of their varied appearances. Only the Drawing Class should be so conducted that the child should feel that he is recording his own impressions of something real, not those of any one else however accomplished; although his representation may be crude and its accuracy only approximate it shall be at least an honest attempt of his own to represent what he has really seen and felt.

If there is any one important characteristic of Modern Education, it is that it is made more and more practical, no longer a divorcement from but an identification with Life. Hence a proportionate amount of attention is paid to Handwork in our Kindergarten. The theory of Psychologists that 'there is no impression without expression' and that every expression intensifies the impression has helped us a great deal in popularising Handwork among children. It is no longer considered that Handwork is merely another form of industrial training but a valuable field where the child might learn lessons in accurracy, patience and forbearance. The first handwork of the child is playing with toys. Kingsley's Water-babies and some of Stevenson's Child's Garden of Verses show us something of the stimulus offered by play with toys. These toys though should not be of elaborate workmanship; it is evident that the increasing wealth and perfection of toys in our age serve to produce dulness or destructiveness as the only form of activity left to them. Toys should be simple and suggestive, to the active imagination of the child. In the Kindergarten the ball which adapts itself so readily to the restless energy

GSL

of the child and the box of bricks over which the child will spend hours representing to the outward eye what the mind has vaguely conceived, and the simple piece of paper and the ever fascinating sand and clay by means of which curious scenes unfold themselves to the child, these are the toys of our children.

Handwork in the Kindergarten takes the form not only of making things with the hands but of a keen observation of Nature. Children delight in living things around them and the wise teacher who wishes to supply the children as far as possible, with the things appropriate to their particular stage of development, takes care to surround them with as much of the world of nature as he can. As Stevenson says there should be no child of six who cannot remember laying his head on the grass staring intently at the blue vault of heaven above and seeing it grow populous with fairy armies. The child must be encouraged to notice the Sun, the Moon, the Stars, the sky, the clouds, the rain, the sunset and the shadows, and thus his childish wonder at the powers of Nature may be the means of leading him to deeper insight into, and an enjoyment of the great, beautiful, wonderful world around us, and to a feeling of reverence for the Creator. Such a great educationist as Rosseau therefore advocated the first hand acquaintance with Nature her secrets and laws for every child before the age of twelve. And the same idea has been reiterated by Longfellow in the following lines :—

> “ Then the little Hiawatha,
> Learned of every bird its language,
> Learned their names and all their secrets,
> How they built their nests in summer
> Where they hid themselves in winter

Talked with them whenever he met them,
Called them ‘Hiawatha’s chickens.’

“Of all beasts he learned the language
Learned their names and all their secrets,
How the beavers built their lodges
Where the squirrels hid their acorns,
How the reindeer ran so swiftly,
Why the rabit was so timid,
Talked with them whenever he met them
Called them ‘Hiawatha’s brothers.’”

In our Nature-study therefore we give our children a garden where they have plenty of opportunities for study and observation. We allow them to take care of pet animals leading them to an intimate acquiantance with their habits and customs. The care of animals is a humanising influence and a valuable training in love and reverence. We take them out on frequent walks and excursions where they can see objects in their natural setting and thus obtain a much wider idea of their beauty and function.

This leads us gradually to the training of the emotions and the æsthetic faculties. No education would at all be complete if it were to leave out of account this most important function of moral training. We had the famous saying that “intellectual giants are often moral pigmies”—if this is so, it is a regrettable fact, and we should so change the early training of the children that such a thing is avoided at least in the future. Hence it is that in the Kindergarten special stress is laid on the formation of a good and firm moral character and that by the most indirect and unconscious means. The cultivation of the æsthetic feelings is a powerful ally in this respect; for the child has a natural love of the beautiful

CSL

and what he looks and admires he imitates. This imitation influences his life and character.

Paintings and portraits help the child in his effort to understand the world around him and his place in it. The artist who paints familiar scenes shows us the Poetry of every-day life and young children can catch much of this poetic spirit. Pictures of every-day scenes —like Raphael's Sistine Madonna and Millais's Reapers —help us to start the artistic train of feeling which is in the child's own mind and to see some of the beauties of nature that otherwise our duller senses would miss.

As Wordsworth says :—

> "We are made so that we love
> First when we see them painted, things
> we have passed,
> Perhaps a hundred times nor cared to see ;
> And so they are better painted—better to us
> Which is the same thing.
> Art was given for that."

Likewise the influence of Music is fully recognised in the Kindergarten. Its elevating effect is appreciated by all : by raising us to the pure empyrean it makes us forget our daily cares and anxieties and acts as a welcome relief from the humdrum of routine work ; it also inspires us with lofty ideals and purposes ; it makes us respond sympathetically to the rhythm of nature, to the sighing of the wind, the rustling of the leaves, the rattle of hail, the dripping patter of rain, the roll of distant thunder, the roar of the water-fall, the dashing of the waves, the buzzing of bees, and above all the songs of birds. Besides it is the only way in which our pent up emotions can find their fullest expression. Where words end, music begins.

We thus make the best in music, poetry and painting contribute to our work in building up the mind and heart of the child. By coming into touch with the thoughts and feelings, the joys and aspirations of some of the great men who have looked at the world and lived in it, we gradually learn to look with their clearer eyes and to see the beauty which delighted their most appreciative souls; and our own world becomes longer and lovelier, through that experience.

All this has to be achieved not by the mere introduction of foreign material but by the intelligent adaptation of the rich stores of legend and story, song and game, amusements and occupations of India. Instead, for instance, of talking about Alfred the Great and Robin Hood the famous Outlaw, who must remain as mere shadowy figures, we may as well talk about the heroes of the Ramayana and the Mahabharata, about the thrilling deeds of courage and self-sacrifice enshrined in the Upanishads and the Puranas, about Akbar and Asoka and all the glorious figures adorning the varied stories of India's fortunes. We may speak with more realism for instance of the life of an Indian Peasant than that of Italy or the United States in so far as the one is next door to ourselves whereas the other is remote in time and space and as such fails to arouse enthusiasm. In other words what we want is a certain Indianisation of the subjects taught, although by the term Indianisation nothing narrow or sectarian is meant. It is a recognised principle in Psychology that we should always proceed from the known to the unknown; from the near to the remote, from the familiar to the unfamiliar and from the concrete to the abstract. And to what extent a

CSL

violation of this principle can go may be illustrated by the following story :—

A small boy was attending an Anglo-vernacular school at Allahabad. The Inspector visited this school and chanced on this boy to ask the definition of a river. The small boy gave a fine and elaborate definition but when asked whether he had seen a river, he said 'No.' This boy who lived at the junction of the two great rivers, the Ganges and the Jumna—he could not at all bring himself to believe that the river with which he was so familiar and on the shores of which he used to play throughout the day and which he mentioned a hundred times every day could answer to such an elaborate definition. Possibly, this boy was enlightened afterwards. But for a moment let us suppose that this boy grew up in ignorance to mature youth and then some one from a foreign country told him that his country was also a great country and had great mountains like the Himalayas and great rivers like the Ganges and the Jumna the mental shock would then be so serious that he would lose the balance of his mind and go about the whole world shouting at the top of his voice, "I have found a river, a river, a river near my home ; and there is no river anywhere else." Such has been the attitude of the Indian mind when after a long period of ignoring Indian culture, western scholars began to come and tell them that India also had a culture of high standard.

And the purpose of the new educational system must be to develop this Indian culture and in this all the four main lines of Indian culture—the Vedic, the Puranic, the Jain and the Buddhistic—must be preserved, as well as the later Muhammadan, Zorastrian and western cultures as far as possible.

GSL

So Indian education has to be suited to India and Indian conditions. Indian education must be for the imparting and developing of the culture which is peculiarly Indian with scope of course for the assimilation of good from elsewhere also.

The best, easiest and most proper education cannot be imparted through a foreign language. It has not succeeded in any country. It means much unnecessary labour and waste of energy. The vernacular must therefore be the medium of instruction everywhere and specially so in the case of the Kindergarten. And we are trying our best to combat the belief prevalent in certain quarters that even the lisping infant must be taught its elements of knowledge in the foreign medium.

One of the most important factors—perhaps the most important factor—in the Kindergarten is the personality of the teacher. But unfortunately in the present educational system the personal element is very much neglected. Education has to be a personal communication of the teacher's mind and personality to the young and developing mind of the pupil. Our present teachers are only connecting links between books of reference and the pupils' "Note-Books." And very thick and high indeed is the note-book wall of separation thus raised between the teachers and the pupils.

All this we are to revolutionise and restore the teacher to his own high pedestal. He ought to consider himself as growing with the growth of the children entrusted to his care and rising to higher levels for their sake. The teacher must therefore keep the spirit strong, the mind fresh, the vision keen, the heart young. It is this unceasing action between the teacher and the child that renders the calling holy and dear to him. It is this that

CSL

gives the teacher an abiding interest in each child and leads him to love it with an intensity second only to the mother's love, with an unselfishness equal to hers and with a clearness of insight not unfrequently superior to hers.

Such teachers in the Kindergarten will teach the child of toil that work is the necessary first step to all true joy and without it there is no joy. They will teach the child of leisure the value and dignity of service and its indispensability to true happiness in each and every life leading him to see that through service, through work alone, he can escape the barren fields of self-indulgence and reach the sunny fruitful pastures of self-sacrifice and the serene joy that comes of it.

Thus it will be seen that the aim of the Kindergarten is to make children good workers, good players, keen enthusiasts, and unselfish co-operators; and with this end in view we strive to carry out in practice the motto "Come, let us live for our Children."

It may seem to some of you here that all this would tend to a revolution in education, but it is only a revolution in the system of education that will destroy all the other revolutions of the world; it would bring solace and joy instead of terror and dismay; and would triumph in the real freedom and liberty of mankind.

"The Hope of Humanity Lies in the Child."

Lecture on Flies.

Read by Major F. CRAGG, I.M.S.

The subject to which it is my privilege to invite your attention this evening is the common house fly, and the part which it plays in the spread of disease. It has

GL

always seemed to me that the house fly has not received its fair share of blame among the insects which are responsible for the spread of disease in India. It is so familiar a creature, so ubiquitous a nuisance, that the mind does not readily attach to it the idea of a potentiality for evil. The diseases in the spread of which it plays so important a part are common and widespread, present almost everywhere, and do not, therefore, attract attention in the same way as does, for instance, an outbreak of plague. But though these diseases do not so often occur in startling epidemics, the total sickness and death for which they are responsible is, none the less, great. The house fly is present almost everywhere, and is very numerous for a great part of the year, and wherever it is found in considerable numbers one may be certain that the diseases which it spreads are taking their constant toll of human life. It will be my endeavour this evening to explain to you what these diseases are, how the fly serves to spread them from one person to another and from place to place, and what measures we should take to combat the fly and to arrest its harmful activities.

The principal diseases with which we are concerned at present are cholera, dysentery, typhoid fever, and most important of all, from our present point of view, infantile diarrhœa. The importance of cholera and dysentery I need hardly emphasise, but a word is necessary with regard to the diarrhœa of infants. It is not, perhaps, so widely known or so well recognised a condition in India as it is in Europe and in America, though it is doubtless just as prevalent. Of all the diseases to which children are liable, this is *the* one of greatest importance. In the early stages, the first day or two,

CSL

the child may not appear very ill, and often the condition is not taken very seriously, but the illness is very often fatal, and it will be safe to say that in this country, as in Europe, more children die of it than of any other single disease. In one year, in America, it was estimated that out of all the children under five years of age who died, one out of every three died of infantile diarrhœa. We have not exact figures for India, but there is no reason to doubt that here, as elsewhere, it is one of the most widespread and fatal diseases from which children suffer.

Now all these diseases, cholera, dysentery, typhoid fever, and the diarrhœa of infants, have this in common, that they are diseases of the intestines. The germs of the disease are taken in with our food or drink, and passing into the bowels, there multiply and produce their harmful effects. As the disease proceeds the germs multiply enormously, and find their way out in the motions of the patient, increased in number not a hundredfold or a thousandfold, but by millions of times. Once they reach the outer world these germs are ready to infect another person, if they reach him in his food and drink, and thus one sick person may be the means of spreading the disease among a large number of others. It is because it takes an active part in the spread of these germs from place to place and from person to person that the common house fly is so dangerous. It is probably by far the most important agent in the dispersion of the infective germ-containing matter, and in the contamination of the food we eat.

Now, I would ask you to think for a moment of what we all know and can see for ourselves every day of the habits of this familiar insect. It is fond of sweet things,

CSL

and of most of the things we ourselves eat, and in the warm weather one sees thousands of them in every bazaar, unless the sanitation of the place is very well looked after. The stalls of the sweetmeat seller are a favourite haunt. Meat is also a favourite food, and unless the butcher's shop is properly enclosed with fly-proof doors and windows the meat exposed for sale may be covered with them, despite the futile efforts of the man to keep them off with a fly flap. The vegetable and fruit stalls are also very attractive, and here you will notice, if you watch for it, that the flies very much prefer the fruit which is over ripe. But it is not only food which attracts flies. Go into any place where filth of any sort is allowed to accumulate, where foul substances are exposed, and there you will find the flies at least as numerous as they are in the bazaars. To a large extent the fly is a foul feeder ; dead and rotten things, animal or vegetable, attract it strongly. Whatever substances are revolting to the human mind are a delectable meal for the fly, and with a fine impartiality he flits from place to place, taking now a meal from offal or worse, and now a meal from food exposed for sale or from the food already prepared for us in our houses. As you all know, the fly is characteristically a restless creature, flitting about all day from place to place, never ceasing to taste whatever choice morsels come his way.

I may mention by the way, since I have much to say in blame of the house fly, one point in its favour. Contrary to what is often affirmed, it does not and cannot bite. The common belief that it does is due to the fact that there is another fly, called the stable fly, which is very like it, and which does bite. The stable fly is a confirmed bloodsucker, and lives entirely on blood which it obtains from the living animal by means of its strong piercing proboscis, which is a substantial and business-like organ, well able to pierce even a thick skin. This species lives almost entirely on cattle and horses, and only occasionally bites man, but the fact that it sometimes does so leads to the house fly, which is quite harmless in this respect, being blamed. The conspicuous proboscis held out in front of the head distinguishes it at once from the house fly. The absence of such a proboscis, however, does not necessarily mean that a fly is not a biter. There is another kind which is very common on cattle in some parts of India, which has no conspicuous piercing organ, but carries its biting apparatus concealed within the head when not in use. This species, however, never attacks man, but lives entirely on cattle.

To return to the common house fly. Let us now analyse its movements a little further, and see what necessarily must happen when it feeds. The insect, as you will see, has six legs, and when he alights on his food he stands on all of them. The legs and feet are covered with small stiff hairs, and his feet are provided with a special sticky little pad which enables him to cling to slippery surfaces such as glass. When the fly settles on a moist and foul substance all his six legs inevitably become fouled, and pick up some of the material. With so many spines and hairs on his legs and feet the fly cannot but carry away some of the soft substance on which he stands, just as we cannot walk along a muddy road and keep our shoes clean. Further, the mouth of the fly is a very elaborate sucking apparatus, and as he feeds that gets fouled too. Like the legs, it is provided with a large number of hairs and bristles. Suppose the same fly, having made a meal from some foul sub-

CSL

stance, as one can see happen every day, now moves to the bazaar or to a house, attracted by the smell of the food or blown that way by the wind. When he alights again in his search for another meal some of the substance which has stuck to his legs and mouth must inevitably come off, just as certainly as the dust from the streets comes off our feet. Now, I would ask you to consider carefully what must occur if by chance there happen to be in the neighbourhood persons suffering from one of the diseases which I have mentioned, for instance, a child suffering from diarrhœa. Unless the persons responsible for the care of the child take proper precautions, which a great many do not do, through ignorance of the risks, there is every opportunity for the fly to pick up some of the germs of the disease, and carry them to the house in which it happens to go to next, and to deposit them on food within that house. It is because of this habit of flitting to and fro, and feeding alternately on foul substances and on the food of man, that the common house fly is so dangerous an insect, and so efficient a carrier of the germs of disease. The wise man, seeing a fly alight on his food, will ask himself where that fly has come from, and where it got its last meal.

There is one very interesting peculiarity about the feeding habits of the fly which I should explain to you. The mouth of the fly is so constructed that it can only feed on fluid substances. Nevertheless, the fly can, as you know, feed on sugar and sugary substances, which are quite dry and solid. To make a meal of such a solid substance, the fly must first of all have it dissolved. It does this in a rather remarkable way, and one which is of importance as affecting its capacity to carry about and to scatter the germs of disease. Inside the body of the fly, near the stomach, there is a large bladder-like chamber, into which the liquid food is sucked as the insect feeds. The contents of this chamber are of course always liquid. Now when the fly wants to feed on such a substance as sugar he uses this liquid to dissolve it. A large drop is ejected out of the mouth on to the sugar, a little of which is dissolved, and the drop is sucked up again. The fly can go on ejecting this fluid on to the sugar and again sucking it up until it has obtained as much of the sugar as it wants for the time. It requires, I think, little imagination to understand how well adapted such a method of feeding is for the spread of disease germs to our food. Whatever liquid the fly last picked up is used again whenever it wishes to feed on solid but soluble substances. Each time the droplet of fluid is ejected, some of the germs which it contains must be left behind.

I would like to lay special emphasis on one very favourite food of the house fly, namely, milk. Among the ordinary foods in houses, there is hardly anything so attractive to it. It is not only the liquid which attracts them; dried milk, in an unwashed vessel, or the dried film on the spout of the milk jug, is just as good, for the fly can obtain nourishment from the dried film quite easily by means of the process to which I have just referred, by ejecting on to it a little drop of fluid to dissolve the soluble parts of the milk. If I may repeat my remark, the wise mother, seeing a fly partaking of the baby's milk, will ask herself where that fly came from, and where it obtained its last meal, and whether there are in the neighbourhood any children suffering from diarrhœa.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

In addition to these two methods by which the fly may contaminate our food, there is a third, which is perhaps more important than either. I have already emphasised the fact that the fly is a foul feeder, and that under circumstances which occur commonly enough it feeds on matter containing the germs of the intestinal diseases which I have enumerated. When the fly makes a meal from such a substance, it of course swallows the minute germs along with the fluid which it sucks up, and these pass into its stomach and intestine. But whereas in a man these germs would set up the disease, to the fly they are harmless. They produce no disease in the fly, and are not themselves destroyed. They may even multiply in the intestine of the fly to a certain extent. In due course, as the insect digests its disgusting meal, the germs are passed out, more frequently than not at a time when the fly is actually engaged in making another meal. Germs taken in with a foul meal may, in fact, be again passed out, with their virulence undiminished by their stay in the stomach of the fly, when the insect feeds again, this time, perhaps, on human food. Flies can thus transport the germs of disease, not only on their legs and mouths, but also within their bodies, swallowing them at one place and depositing them at another. It requires little thought to understand how dangerous such a power may be.

The habits of the fly are, in fact, as dangerous as they are disgusting, as each of us may convince himself by observing their habits closely for himself. But I hasten to add that the case against the house fly does not rest on such observations alone. The whole question has been gone into by modern scientific methods, and careful experiments have shown that these insects can

GL

and do transport micro-organisms in the ways which I have indicated to you. It would weary you to go into the technical detail of these experiments, but I may say that the organisms of typhoid fever and dysentery, for instance, have actually been recovered from the legs and from the intestines of flies exposed to contamination. Further, there is a very large amount of very strong evidence regarding the relations of flies to epidemics of these diseases. The experience of the war has most fully confirmed our knowledge in this matter. Epidemics of dysentery, the scourge of armies in the old days, have practically always been found to be associated with enormous numbers of flies, and when it has been possible to take effective measures against the flies the epidemics have been cut short. No doubt remains in the minds of those who have had to do with sanitation in war that the common house fly is directly responsible for at least the majority of outbreaks of epidemic dysentery among troops in the field.

I should mention here that the intestinal diseases which I have enumerated do not by any means exhaust the list of ailments for which the house fly has been blamed, on more or less strong grounds. Among other diseases, it has been urged by some authorities that flies are partly responsible for the spread of tuberculosis. Undoubtedly, flies are strongly attracted by sputum, and feed on it greedily. This is a matter of common observation. The sputum of persons suffering from tuberculosis of the lungs often contains the germs of the disease in considerable numbers, and it is quite possible that a fly, after feeding on such sputum, may carry away some of the germs on its body or in its stomach, and subsequently deposit them on food. Medical men

GSL

will see at once that such a risk of contracting tuberculosis applies specially to children, who are more liable to tuberculous disease of the alimentary tract than are adults.

Another disease for the spread of which flies are at least partly responsible is Ophthalmia, or inflammation of the eyes, an affection which all too often leads to partial or complete blindness. In this malady the inflammation gives rise to a constant oozing of inflammatory matter from the eyes, and this discharge of course contains the germs of the disease. If flies are numerous in the place where the unfortunate patient lives they are certain to worry him, and to feed or attempt to feed on this discharge, and in doing so pick up some of the infective matter. If it happens that they then settle on the face of another person, perhaps on the face of a sleeping child, they may easily enough get rubbed into the eyes, and so set up the disease. What makes the spread of the disease in this way the more likely is the extraordinary indifference which children so often show to the annoyance of flies buzzing round them and settling on the face.

We have now to consider what measures are to be taken to combat the house fly, and to avoid the dangers to which we are exposed through its agency. I may say at once that there is only one way which offers a sure hope of success, and that is, to prevent the flies from breeding. This must always be the main line of attack. If we can, by a thoroughly efficient sanitation, make it impossible for flies to reproduce themselves and multiply, we will have achieved most important results, and have abolished one of the most fruitful causes of disease in an Indian town. It follows, of course, that

GL

if we can stop flies from breeding other steps against them will be unnecessary.

In order to understand how this most desirable objective is to be attained, it is necessary that we should first know how and where flies breed, for only if we are armed with such knowledge can we hope to devise really effective measures. I will first, therefore, give you a brief account of the life history of the common house fly.

As is the case with so many insects, the life history of the common house fly consists of a series of remarkable transformations, which we call, in technical language, a complete metamorphosis. Flies are not born as flies; when they emerge from the egg they are nothing but minute active maggots, having no resemblance whatever to their parents. These maggots grow rapidly, and when they are full grown, they pass into a resting stage which we term the pupa. Within the hardened skin of the pupa the insect undergoes, without further growth in size, an almost complete remodelling of its structure; legs and wings are formed, and in due course the perfect fly is produced, and escapes from the shell which has given it shelter during its transformation.

The egg of the fly is a minute body, just visible to the naked eye, fairly easily seen because of its dense white colour. They are laid in batches of a hundred or more, and each female may lay several batches during her life. It often happens that several females will be attracted to the same spot, and lay their eggs together, with the result that one finds large clumps of eggs, the produce of many females. The eggs hatch within a day or half a day, and out of each emerges a minute but very active little maggot, which at once crawls away in search of food. This is what one may term the growing stage of the insect. Within a week, more or less according to the climate, these maggots grow to a length of half an inch. As the body increases in size the maggots grow new skins and cast the old, much as a snake does. Usually they show a tendency to collect together in considerable numbers at spots where the food supply is specially abundant and suitable, and one often finds clumps of a hundred or more an active wriggling heap. When the maggot has attained its full size it ceases to feed, leaves its feeding ground, and seeks out some quite spot in which to undergo its final transformation. The outer skin hardens and becomes of a dark mahogany red colour, and the body becomes shorter and stouter, and more compact. This stage is one of outward rest and quiescence. The insect neither moves nor feeds. But inside this hardened skin the entire organism is undergoing changes which lead to the formation of the perfect fly. If one opens the pupa case of a late stage, when the fly is almost formed, one sees a curious mummy like object, in which the parts of the perfect insect can be made out quite well. The legs are at first simple and without joints, and the wings are small and closely folded. Usually, in warm weather, the whole transformation of the maggot within the pupa case takes about a week. When the whole process is complete, the fly burst open the end of the pupa case, and emerges into the outer world complete and ready to begin its adult life, and to again reproduce its species.

Thus, the whole development of the fly from the egg to the perfect insect occupies about a fortnight. The time taken depends to a very large extent on the climate and the season of the year. Cold weather, and very hot dry weather, are not favourable for the house

CSL

fly. It thrives best when the weather is warm and moist, as for instance at the season of the rains, when. as you will have often observed, flies are more numerous than at any other time of the year.

Flies are able to commence egg-laying within a short time after they emerge from the pupa case, and each female may lay five or six batches of egg. If one takes the average number of eggs in a batch at a hundred—it is usually much more—that means that from each pair of flies, male and female, five hundred or more flies may be produced. Before the parent pair are dead some of their descendants will be also reproducing their kind. No wonder, then, that when circumstances provide them with an abundant food supply their numbers may increase so rapidly and so enormously.

Such, then, is the manner in which the house fly reproduces its kind. We have now to consider the question, all important from the point of view of attacking it, of where it breeds. If we can find and abolish its breeding places the fly nuisance will be done away with, and we will no longer run the risks of contracting fly-borne disease.

The fly maggots require certain quite definite conditions for their growth and development. Briefly, these are an abundant food supply and the moisture and heat provided by the fermentation and decay of animal or vegetable matter. They cannot thrive on dry materials, or on perfectly fresh substances. The food may be any kind of animal or vegetable refuse, but it must be fermenting, or it will neither attract the females to lay their eggs on it nor will it provide a satisfactory food for the maggots. But once these necessary factors are present, the fly has a wide range of choice.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

Of all the substances which are commonly present in towns and villages and near our houses the one which most fully supplies the necessary conditions, and which is present in the greatest amount, is stable litter. In the ordinary circumstances of town or village life this is by far the most important breeding ground for flies, and is responsible for the great majority of the flies in the bazaars. As everyone who has to do with horses knows, when stable litter is piled in a heap fermentation takes place, and the inner parts of the heap, which are protected from the Sun's rays, remain moist for a long time, even in the hot and dry weather. The mass gradually ferments and decays until it is converted into a friable black substance, the "kala mitti" which is so valuable a manure. The "ripening" of manure is in fact a fermentative process, and it is while this fermentation is going on that the stable litter forms such a satisfactory breeding ground for flies. All that they require is here easily obtainable; an abundant food supply, moisture, and the warmth produced and maintained by the fermentation. To one not accustomed to sanitary work of this kind the number of maggots which may be found in a neglected heap of stable litter is astonishing. One sees nothing on the surface, except, perhaps, if one looks closely enough, some masses of eggs. The maggots cannot live in the dry outer layers where they would be exposed to the rays of the Sun. But a few inches below the surface and right through the pile if it is not a very big one, one sees masses of maggots, heaped together wherever the manure is specially soft and moist. It is only while the mass is fermenting that it is suitable for the breeding of flies. Once the whole is fermented and decayed it no longer contains the substances necessary for the nourishment of the maggots, and no more eggs are laid on it. But unfortunately, the litter does not reach its highest value as manure until this "ripening" has taken place, and the pile is only too often left to rot in the stable yard before removal to the fields or garden. The inevitable result is a swarm of flies.

Apart from stable litter, any kind of vegetable matter will serve, provided that it is in a sufficiently thick layer to retain its moisture while fermentation goes on. The remains of food and other debris from the kitchen, left in the receptacle too long instead of being burnt, are often found to contain enormous numbers of maggots; piles of rotten fruit, all the odds and ends of things which are allowed to accumulate around ill-kept houses, will serve for the food of the maggot stage of the house fly. If people will dump to-day's refuse on the top of yesterday's, in the nearest convenient place, and dump to-morrow's on the top of that, they are doing nothing less than providing the flies with a very suitable breeding place near their houses. The flies, when they finally hatch out from the pupa case, will forthwith enter the house in search of food.

I may add a word about the pupa and where it is to be found. As I have already said, the maggot leaves its feeding ground when it is full grown, and seeks a dry and sheltered place. They will often travel considerable distances to get away from the warmth and moisture which were so suitable to them during the period of growth, but which are now to be avoided. One finds the little mahogany brown pupæ always at the edges of the pile, in dry soil, or under leaves, sheltered as a rule from the Sun, but well away from the place where they lived as larvæ. Often the pupæ, like the larvæ, are found

CSL

in large collections. This point is of a little importance, for in cleaning up a place where maggots have been found one should remember that the pupæ will lie a little distance off, and therefore, it is wise to clean up the whole area, and sweep up and burn all loose debris in the near neighbourhood.

My remarks on this subject would be incomplete without a reference to another breeding ground for flies one which is often of the utmost importance. I refer to conservancy trenches. If these are not properly managed—and it is sometimes no easy matter—myriads of flies will be bred from them, and if the direction of the prevailing wind favours them they may be blown towards the town. Incinerators are often a serious source of trouble, and if they are not properly worked flies may breed in enormous numbers actually inside the incinerator. The fact is best recognised by the finding of pupa cases around the outside of the structure.

I may add that the common house fly does not ordinarily breed in cow dung. It does not ferment in the same way as does horse manure, and the patches of it dropped in the fields dry too quickly. It may sometimes happen that it serves as a breeding ground if it is collected in large piles, but it is not often a serious source of trouble. One finds large numbers of maggots, very like those of the house fly, in cow dung, but these are mainly the maggots of flies which feed on cattle, and do not enter houses. Many flies which resemble the house fly, but live entirely on the blood of cattle, breeds in cow dung. Their maggots have frequently been mistaken for those of the house fly by enthusiastic but inexperienced sanitary officers.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA

GSL

Now as to the measures which are to be taken to avoid the dangers which we all, but particularly the children, are exposed from the common house fly. I think I need hardly emphasise further the very great importance of keeping all food, but especially the baby's milk, from all chance of contamination by flies. No thoughtful mother, once aware of the circumstances of the fly's daily life and of its potentialities for evil, can willingly allow flies to have access to her child's food. Milk must of course be kept in a closed vessel, but that is not all. As I have already pointed out, flies can and do feed on dried milk, and one must be sure that the vessel in which the milk is kept is so closed up that flies cannot settle on the spout or on the rim, on which there is a film of dried milk. If rubber teats are used in feeding from the bottle they must be carefully washed after use, in order to get rid of any trace of milk which might attract the flies. Further, everything possible should be done to avoid attracting flies to the house. Refuse and kitchen debris should be destroyed by burning at the earliest possible time, and until then it should be kept in a closed vessel into which flies cannot enter. All the measures necessary in a house are essentially simple, and can be carried out with very little expense or trouble, once their principle and importance is understood.

Such domestic measures are necessary in the present imperfect conditions of our daily life. But they are at best only secondary, and can never be wholly satisfactory. Our principle effort as a community should always be directed as a frontal attack on the flies, by preventing them from breeding. Much of what is to be done to ensure this is indicated clearly enough

CSL

in what I have said with regard to the breeding habits of the fly. The whole principle may be summed up in a sentence. Stable litter, kitchen refuse, and other rotting vegetable matter must on no account be allowed to accumulate, but must be destroyed by burning. But although the principle is very simple, it is not always so easy to carry it out. It needs a great deal of co-operation in matters of detail, and the education of public opinion which renders that co-operation possible. An efficient sanitary staff is of course essential, but even with the best of staff perfect results cannot be hoped for unless they are aided, and indeed kept up to the mark by the people themselves. Indeed, it will not be going too far to say that in the prevention of fly-borne diseases the first essential is a spread of knowledge on the subject, until the dangers to which we are exposed from flies, and the simple measures which are necessary to prevent them from breeding, are matters of common knowledge. When this is attained, and when we can be assured of a pure supply of water and of pure milk, we can hope for a great decrease in the sickness and mortality from the diseases to which I have referred, and particularly to a great decrease in the appalling mortality of infants in this country.

[LECTURE FOR WOMEN.]

"Indian Childhood and Education."

By Dr. Yamini Sen, W.M.S.

DIBACHA YA BHUMICA.

Sabhapati aur bahinon, jis vishaya men main kuch kahti hun wuh yeh hai "Bharatiya bachpan aur Shiksha."

Dhyan rahe ki yeh sirf bachpan aur shiksha nahin hai, magar Bharatiya bachpan aur shiksha hai.

Kya Bharatiya bachpan aur shiksha men kuchh bhed hai jo aur des ke bachpan men nahin paya jata ?

(1) Pahili bat jo mere khiyal men ati hai wuh yeh hai—Bharatiya balyawastha men bhayanak mrityu sankhiya.

(2) Dusri bat yeh hai—bachhon ki hamesha bimari jis ke sabab se wey bilkul kamzor ho jate hain, aur isi kamzori ke sabab se bimari ka mukabila nahin kar sakte.

(3) Tisri bat yeh hai—tandurast bachhon ka bhi adarsh bachpan nahin rahta. Zindagi ka maza jis taor se bachhon ko hasil karna chahiye us taor se wey nahin hasil karsakte. Kamzori ke sabab se wey aksar chupchap, sust, dabel nirutsaha hote hain. Bachpan hi se chinta aur thakawat se dab jate hain. Chhote chhote bachhon ki baron ki tareh chalchalan aur rawaiya dikhai deta hai. Uchhalna koodna, khelna aur kasrat wagaira wey pasand nahin karte.

Maine ek dafa ek char sal ke bachhe se pucha tha ke tum aur dusre bachhon ki tareh kyun nahin daurte aur khelte ho ? Usne bahut udas pan se kaha ke mere paon men hamesha dard raha karta hai, is liye main khel kood hahin sakta. Maine us se puchha “ tumhari man ko yeh bat malum hai ? Us ne jawab diya. Manko bahut ranj hoga is liye maine un se yeh bat nahin kaha ” Tab se main jab kisi bachhe ko udas aur sust dekhti hun, mere dil men hardam yeh khiyal ata hai ke yeh bachha bimar hai. Jo bachhe tandurast aur takatwar hote hain wey kabhi sust aur nischal reh nahin sakte. Tandurasti nahin rahne ke sabab se hamare Hindustan ke bachche itne sust aur thande rahte hain.

GSL

Bachpane men tandurasti nahin rahne ke sabab se bare hone par bhi wey purna swasthya nahin pate hain. Bachpan ki kamzori ke nishanat zindagi bhar un ko dikhai dete hain.

Pachas baras ke peshtar se Hindusthan men ayu ki tadad maut men sirf tewis baras ka ausat hai. Wilayat ke tamam mulkon men ayu ki tadad is se dugni hai.

(4) Hindusthan ke bachche aur aur jagah ke bachchon se pitri-matri bhakta hote hain aur apne parivaron ko bahut chahte hain. Mata pita bhi apne bachchon ko bahut hi piyar karte hain. Is liye agar mata pita vishesh karke mata akkalmand aur achhi shiksha pane se bachchon ko tandurast aur sattswabhawapannakar sakti hai.

Ab main pahile balyawastha aur mata ki bachchon ko chalane ki sakti ka bayan karti hun. Ma ko chhor kar yane agar ham ma ko alag rahne den to bachchon ki shiksha ki bat kahi nahin ja sakti. Agar ham log saririk, manasik aur naitik bal se baliyan bachche chahen to ham logon ko pahele uoi tarah se mata ko bhi siksha dena munasib hai jis siksha men mata Ishwar pradatta gun ko purnabikash kar saken.

Soisab athwa bachpana manushiya jiwanka prathkal. Manushiya jiwan anantahkal ka Soisab kal. Bachpan men bachche jo siksha pate hain wohi ihalok aur parlok ki buniyad hoti hai. Balakon ki susiksha se koi vishaya bhi kisi jati ke liye khas zarurat nahin hai, sab desh ko adur bhavishiyat in balakon ke chhote chhote haton men hai. Main ap logon ko mananiya Her Excellency Lady Chelmsford ki taraf se yeh bat pesh karti hun jo nai qaum ya jati Hindusthan men jari hone wali hai us ke liye un ka kya khiyal hai :—

Wuh is qaum ke balakon ko bare khiyal se tasbi karti hain. Ajkal jo balak hain wuh hi ek din is qaum

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

ke chalane wale honge. Hamlogon ko unke faide ke waste koi taklif taklif aur kharch kharch nahin sochna chahiye, kiyon ke yeh unko mazboot aur tandurast admi aur aurat hone men madat deta hai.

Hindusthan me jin logon ne kuch bhi swastharaksha ke liye socha hai wuh log in sahaj tandurasti ke dasturon ko na palne ke liye itni manushya jiwan ki nuksan dekhkar fikarmand hue hain. Hindusthan ke balakon ki mrityu sankhiya sunkar bahut hi tajub aur afsos malum hota hai. Yahan ki mrityu sankhiya Wilayat se dugni hai. Har sal men Hindusthan men Bis Lakh bachche ya har roz panch hazar bachche martehain. Jo jite rahte hain wuh bhi bachpan men aswasthyakar sthan men rahne aur tandurasti ke niyamon ko na palne ke sabab se kamzor rahte hain. In sab balakon ka jab vidyalaya men ya school men jane ka wakt ata hai tab kamzori ke sabab se likhna parhna umda tarah se nahin seekh sakte. Aur school men achchi tarahse talim hasil na karne ke sabab se wey bare aur akalmandi kekamon ko puri taur se kar nahin sakte.

Mata ke hathon men hi balakon ka swasthya aur jiwan rahta hai. Lekin bahuteri mata in swasthya ki dasturon ko nahin janti hain. Isi liye aurat aur sadharan manushiyon ko darmiyan shiksha ke bistar ki bahut hi zarurat hai. Swasthya raksha ke dasturon ko bachpan se hi bachchon ko shiksha dene se wuh shiksha unke dimagon men bharpur baith jati hai. Aur yeh shiksha sirf mata hi de sakti hain. Hindusthan ke kisi Raja ne yeh bat sach hi kahi thi ke siksha aur swasthya vishayak unnati haton hath mili rahti hai. Bilkul siksha nahin hone se jin logon ke swasthiyon ki unnati ke liye tadbir ham log karenge; wuh log us ko karne nahin denge.

CSL

Bachche ki pahili awastha mata ka ek hissa rahta hai. Aur bachcha paida hone ke bad bhi maki jagah dusra koi le nahin sakta. Apne bachchon par matayon ka asar beshumar rahta hai. Parantu duniya ki sab matayon se Hindusthan ki mata sab se mithi, sab se mohabbati, aur bachchon ke liye jan denewali hoti hain. Duniya ki aur kisi jagah men bhi mata aur putra ke darmiyan aisa sakht bandhan aur kahin dikhai nahin deta.

Pashchim men arthat Europe khand men beton ki shadi ke bad wuh log apnemanbapon ka ghar chhor kar apni aurat ke sath dusri jagah par jakar rahte hain. Lekin Hindusthan men putra shadi karke apni aurat ko ma ke pas uski beti ki jagah puri karne ke liye de deta hain. Aur mata putra ke piyar se banchit na hokar aur bhi bahoo ka piyarpaya karti hain. Hindusthan ki bahuteri mata apne bachchon ko bahut dinon tak doodh pilaya karti hain is liye mata aur santanka bandhan itna sakht hota hai. Hindusthan ki purush jati is liye nari jati ki izzat karti hai. Meri bat ko purman karne ke liye purani kahawat kahti hun. "Yatra naryastu pujyante ramante tatra devata." Yane jis jagah narijati ki puja athwa ijjat ki jati hai us jagah par deota log khusi se bas karte hain. Hindusthan ke balakon ko apne larakpan se yeh sikhaya jata hai Janani, janma bhumischa, swargadapi gariyasi. Manu Sanhita ne Hindusthan ke purane wakhton ka adarsha thik taur se bayan kiya hai ki. Upadhya se acharya das gun izzat pane ke layek, pita acharya se sata gun izzat pane ke yogya, mata pita se hazar gun barhke izzat pane yogya.

Mata apne balakon ki zindagi banane ka ek sancha hoti hain. Unhi logon se bachchon ka man aur swabhao puri tareh se khul sakta hai. Agar ham log apne bach-

CSL

chon ko achhi talim dena chahte hain to auraton ko usi tareh talim dene ki zarurat hai.

Purane zamane men jab Hindusthan mashhoor tha us wakht yahan ki aurat bhi gariyasi aur adarsh sthaniya thin. Stri aur balak ka sambandh itna nazdik hai ke ek chhor kar dusre se bartao nahin kar sakti.

Purane zamane men Hindusthan men susiksha hoti thi. Hindusthan ki santanon ke liye us wakht jiwan ke sabhi kamon men dastur bandha hua tha. Main ap logon ko purane zamane ki siksha aur ajkal ki siksha ka mukabla kar dikhati hun.

Mrs. Besant ne apni ek kitab men purane zamane men Hindusthan ke nariyon ke sambandh men aisa kaha hai:—Hindusthan ke nariyon ke baraber mahottam prakar ki nariyan jo Hindusthan ke mahakaviyon men ankan-nipun prativasali mahakavi logon ne jiwant pratimurti se anka hai, wuh duniyan men kahin bhi nahin dikhlai deti hai. In thore se pratimurtiyon ke bhitar un logon ne duniyan men jo kuch sabse achhi, dilki mazbuti, mithai aur manushiya jiwanki charam utkarsh wuh ankan kiya hai. Ramchandra ki stri Sita devi jo ke apne pati ke sath apna mulk sinhasan aur parivaron ko chhor kar ban men chali gain thin; ban men bhi unko sukriti aur sundarya ne sabhon ko mohit kiya tha. Jo ke rakshason ki bat men parke bhi apne pati par pura bharosa aur bhakti aur karagar ke bandhan men aur mrityu ke samne bhi apni himmat atut rakkhi thi, satitwa bhi nishkalank rakkhi. Jab logon ne unke satitwa men anyaya kalanka lagaya tha tab bhi unhon ne kya tezi sahishnuta aur dhirata ke sath us kalanka ko dur kiya. Valmiki munike Sita charitra se barhkar sundercharitra bahut hi kam dikhai deta hai. Lekin yeh charitra us wakht ki taswir khinchi hui hai.

Aur Savitri—Jisne apne pati ko mrityu ke kathor aur tushar sital panje se chhutai liye thi. Aur Sakuntala—jinke sambandh men German kavi Goethe ne yeh bat kahi hai ke adarsha dikhane ke liye log unka nam hardam lete hain. Aur Kausalya—adarsh mata—Aur kitne nam loon? Hindusthan ke purane sahitya aisa nariyon ke bayan se bharpur hai.

Us wakht men arya nari swadhin, gariyasi aur bahut takatwar thi Puja mandap men pati ke pas hi unka asan tha. Unko chhorkar pati apne ghar men dharam karam kar nahin sakti the. Jiwan sangram men bhi Aryanari hardam patike sath raha karti thi. Mrityu ki darwaze se ihalok se, parlok ko sukh shantipurna ananta jiwan men chali jati thin. Us wakht un logon ka jiwan pati se juda nahin rahta tha. Stri ka jiwan pati ke jiwan ka hissa hi malum deta tha.

Paschim ko samyabhao arthat saboka barabar adhikar ye bhao Hindusthan men parivaron men, Samajon men aur jatiyon men pahile ke zamane nahin tha. Wuh log apne ko aisa nahin samajhte the ke hamare adhikar men koi hat na deve—lekin wuh log apne ko kartavya ka das samajh kar puri tareh se kartavya ki tabedari karte the. Un logon ka adarsha yeh nahin puchhta tha ke duseron se apne kartaviya unpar pura kiya ke nahin? Lekin usne apna kartaviya puri tareh se kiya ya nahin, yehi puchha jata tha.

Manushiyan ke sarir men jaisa sab anu paramanu milke manavdeha gadti hai aur juda juda yantra hoke farak farak kam karti hai manushiyasamaj men bhi aisa hi apasmen subkoi hai. Isi liye stri aur purush nirvivad se aur santi se apna apna kam karte the.

Purane zamane men Hindusthanion ke liye kuchh adaras dastur bandha gaya tha, sabhon ko ek hi dastur se chalane ke liye wuh adarash ain ban gaya tha. Us wakht men sabhi kartabya milkar adras aur yeh adarash ka nam Hindusthaneon ke dharam ya kartabya aur shikast se rakhha gaya tha. Is tareh se Hindu dharam apas men bandhe hue sakli ki tareh tha, is sakli ka ek hissa bhi tootne se sab bandhanpar chot ati thi. Jabtak sabkoi sub dastur ka arth samajh ke usi mutabik kam karte the tab tak thik tareh se hota tha. Lekin hamlog aksar yeh dekhte hai ke hardam hoshiyar nahin rahne se kuch dinon ke bad manushya such ko chhor kar uski parchain ko pakar lete hain. Yane, antarik dharam bhao ko chhorkar baher ke anusthanon ko pakar lete hain aur tabhi hamlog dharam se chhut jate hain.

Is wakht purush, nari aur chhote bachchon ki bhi Kartabya alag alag thik kardi gai thi. Isi liye Bharatbarsha unnati ke charam shikhar men yane choti men pahoucha tha. Hindusthan ka Samajik jiwan bhi isi tareh se adhyatmik jiwan pane ke liye bana tha. Main aplogon ke samne bibaha anusthan ka drishtanta dikhlati hun. Pati aur patni jiwan ke sub kamon men mile rahte, eki sath dharam anushthan aur eki sath samaj anushthan. Unlogon ka sambandha mrityu ka sang pura nahin hota tha lekin mrityu ka bad islok se par lok tak wuh log apna apna sambandha rakhha karte the. Hindusthan ke aise ghar men swanam dhanya Hindu nari paida hui thi naryon jo sirf griha-karma men hi sunipuna nahin thi, lekin adhyatmik unnati ko bikas men bhi srestha thi, jaise Gargi aur Maitreyi. Bharatbarsha men aisa kon Bharatbasi hai jinko Gargi, Maitreyi, Sita, Savitri, Damayanti, Sakuntala ke namon se dil khushi se nahin bhar jata hai, aur jinka dil halki narion ki chal chalan dekh kar chhota nahin ho jata hai ? Hal ki narian komal pavitra aur patibrata hone se bhi bari hokar adhe bachche sariki hain aur Zenana me kaid ki hui hain, aur bara afsos to yeh hai ki kathor ajnanata ke kárágár men abadh hain.

Jab ták Bharatbarsha praja tantriya raha tha, jab tak jati nirbisesh men jana. Sadharanon ki liye Susiksha deti thi, jnan jab tak sabhon ke samne khuli kitabon ki muafik tha tab tak unnati bharpur thi. Uske bad jab Brahmanon ne uchcha siksha aur sastra apne adhikar men le liya aur Sadharan manushyan ka sastra parhna bandh karke apne irade ke mutabik baton par chalane lage tab se Bharatbashion ka patan suru hua ; narion aur jana sadharan such ko chhorkar uski parchhain ko pakarne lage aur Hindusthan ahista ahista ajnan ke andhere men dubna suru kia.

Prakriti ki Hindusthan par bahut hi meharbani hai. Prakritik saundarya men, dhan daulat men, giri, guha, nadi aur brihat ayatan men Hindusthan sresht hai, isiliye Hindusthan par shuroo se bideshion ki itni nazar hardam raha kartithi. Hindusthan bahut se zaton se parajit hokar apna chal chalan bhulker bideshion ki chal chalan bilashita aur adharam le liya hai. Hindusthan apna gyangarima, dharamgarima, riti niti sub bhul gaya. Isiliye apna viaktikta khodiya isiliye aj uska koi apna itihas bhi nahin hai. Koi koi purani ritiniti wuh abhi bhi man raha hai. Lekin wuh ritiniti ke uddaish ya matlab unko malum nahin hai.

Sister Nivedita ne apni " Web of Indian Life " men ek jageh likha hai ke adarash yeh bachan ko viakhian karneke wakht hamlog kahte hain adarsh yeh hai jiske waste ham logonki atma akanksha karti hai lekin atma

CSL

ka yeh akanksha jiwan men aur samaj men jo lagana sambhab par hota hai aur jiske hamlog ‘ customs ’ pratha kahte hain wuh yehi hazam kiya hua adarsh hai. Hindusthan ke samajik prathako pariksha karne se nariyon ke atmasanjam aur nihsharthata ke adarsh ka drishtanta dikhai deta hai.

Yeh achhi nishani hai ke hamlog apna abhab aur durgati ajkal samajhte hain. Sub durgati ka hi pratikar hai isliye wuh bahut dinon tak nahin rahti. Durgati ka mul agyanata hi hai. Kisi vishai ka gun aur uska dusri vishai se shampark sambandh men agyanata durgati paida karti hai. Jabtak hamlog agyanandkar men rahte razi hote hai, tabtak durgati bhi rahti hai. Jagat men koi durgati nahin hai jo agyanata se paida na ho aur jo jijan se tadbir karne se aur durgati jo siksha dene chahti hai wuh sikhne se ham logon ko sub se unchi siksha dekar ghaeb ho jati hai.

Thore dinon se larkiyon ko susiksha dene ki tadbir ho rahi hai. Uska matlab yeh hai ke larkiyon ko yogya sahdharmani aur adarsh mata banana. Mere pas ek dafa Central Hindu College ke larkiyon ki pathia vishai ka ‘ list ’ aya tha, usmen ‘ Domestic Science’ larkiyon ke waste compulsory subject hua tha. Central Hindu College ko faculty ke kisi kisi member ne aisa kaha tha ke stri siksha ka uddaish purushon ke sath sub kamon men prati-dandita karna hi nahin hai parantu donon ke juda juda kshetra men alag alag kam hai. Is yadgari ko dilmen rakh kar aur Hindusthan ki abastha par khiyal rakh kar aisi siksha deni chahiye jis se griha swasthya-purna susrinkhal, shanti aur sukh purna hoga aur wuh larki apne pati ko buddhimati sahjogini, pati ke adhayan men madad dene wali, apne bachchon ki manasik vriti aur charitra gathan men nipuna hongin.

Is College men larkiyon ke waste garhastya vigyan—Domestic Science —ko ek khas course kiya gaya hai, ismen :—

Intermediate Art Examination ke waste sharir vigyan arthat manushiya kankal, mansa, peshi, khunki harkat, hazam, svas-prasas gelti ki bat, snayer aur panchendriya ki bat, jaher bahar nikalneka yantra, etc.

First Aid, Manual of the Red Cross or St. John Ambulance Societies.

2. *Swasthya raksha*—
   Ventilation—safa hawa.
   Sanitation—ghar aur raste ki safai.
   Water supply—pani ki bat.
   Disposal of refuse—Maili chiz dur karne ki bat.
   Child welfare—bachchon ka palna.
   Simple nursing—rogion ki sewa.
   Use of thermometer—bukhar ka ala.
   Making of poultices—poultice banana.
   Fomentation—senkna.
   Bimaron ke liye pathya pakana ityadi.
3. *Dietaries*—
   Aharya—Khadya drabya ka gun khaneko uddeshya.

B. A. Course.

1. (*a*) Manobijnan (*Psychology*)—Bachchon ki man ko bikas-pranali, balya siksha.
   Niti Shastra (*Ethics*)—Manab-jiwan ka uddeshya.
   Niti kya hai—niti ki byakhyan.
   (*b*) Samaj bijnan (*Sociology and civics*) manushya Samaj gathan.
   Manab ke sath manab ke sambandh.

(*c*) Artha bijnan (*Political Economy*).

2. Jiwan bijnan (*Biology*).

Ham logon ki striyon ko is tareh se siksha dene se wey log ghar sambhalne ke layek aur nek mata ban sakte hain.

Purane zamane men Bharatbashion ko jiwan char hisse men bhag kar jata tha :—

(1) *Saisab.*—Janam se bara baras tak. Is wakht ma ka asar beshumar rahta tha.

(2) *Brahama charya.*—Janeyu hone ke baad balak guru ke ghar me siksha ke liye bhej diye jate the. Is wakht ko brahamacharya aur balak ko sishya kahte the. Sarir aur ma ko pavitra rakh kar sub sat gun ko puri tareh se bikas hi is wakht ka uddesya tha. Sarba prakar saririk parisram, byayam dvanda yuddha astra krida in sub se aur ahar, biharke sangjam se balak ko sarir takatwar hota tha. Sub balak ek sath rahte the aur ek byabahar pati the. Niswarthata aur sangjam sikhlana yeh sikshake ek uddesya tha. Bachche sirf sahitya aur vyakaran men hi siksha nahin pate the lekin Dharma Shastra, Niti Shastra, nyaya, darsan—yeh sub visheya menbhi siksha pate the. Dharmanusthan men aur pujarchna men bhi guru ko madad dete the.

(3) *Grihasthasram.*—Balak bara hone ke baad, jab usko siksha sesh ho jata tha tub wey shadi karke sat pati, yogya pita aur samaj nayek ke kam karte the.

(4) *Banprastha.*—Samaj men apna kartabya kam karke, bardhakiya ke shuru men sansar chhorke Paramartha ki chinta ke liye ban men jate

the. Us wakht me bilkul nishkam rahta tha. Ishwarki priti, tat priya karya sadhanam. Ishwar ke sath milna yeh hi us wakht ka kartabya tha.

Pura kalmen Bharatbashi jiwanke kartabya ko samashti samajhte the. Pahile do hisse men sub gunke bikash karne ke liye siksha pate the, pichale do hisse men ishi siksha ko kam men lagate the. Un logon ke liye siksha ka uddeshya tha sarir aur atmako unuati karke atma ke sath Paramatma ko milae rakhna ya Parameswar ki ichha apna apna jiwan men pura karna.

Main ne pahileh kaha ke Bharatbarshiya balyavastha men charon chizen mujhe aur aur jati se alag malum huin :--

1. Bhishan mrityu sankhya,
2. Hardam bimari,
3. Zindagi ka maza ka abhav,
4. Bachchon ko pita mata ke upar bahut prem.

Pahile teen avastha ke karan hain. (1) Bharatbarshiya nariyon ke garbhavastha aur prasub ke vishaya men, bachchon ko palne, aur ghar ki safai rakhne men ajnanata. Garbhavastha Parameshwar ke hi niyam hai aur swasthya ki hi nishani hai. Is wakht men swasthya ke sub niyam palan karne se hi bas ho jata hai. Halki chiz us wakht khana chahiye, pet saf rakhna chahiye, pishab saf se khula ho yeh khiyal rakhna, roz asnankarna, aur thori kasrat karna chahiye. Dil aur tabiyat khus rahna chahiye aur her ek par umda khiyal aur nazar rakhna chahiye. Is wakht mata ke khiyalat achhe nahin rahne se santanke khiyalat bhi kharab hote hain.

Bharatvarsha men balya kal men hi matakko bachche paida honeke sabab se daridrata ke waste aur susiksha ko abhava se bachchon ki mrityu sankhiya itni ziada

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
GSL

hai. Sadharan manushya log mata aur Dai log yeh sub koi bilkul ajnanata se bhare hue haen. In logonki talim ke liye koshish karna chahiye. Subkoi itni jiwanki nuksani ki bat samjhana chahiye. School men swasthya rakshasikhana chahiye. Swargia Sir Pardey Lukis ne ek lecture men kaha tha ke Bharatbarsha men bimari aur garhasthya jiwan men nikat sambandh hai. Bharat ki nari jatiko jab yeh bat thik se malum hogi tab Bharatbarsha ko bhavishyat unnata hoga. Unhon se dekh laya tha ke ghar ki safai rakhne se aur chhote chhote janwar jaise chuha ko ghar men rahne nahin dene se plague kam ho jata hai. Chhote chhote ghar men pani jam jakar Malaria paida karta hai. Bachchon ki mrityu bhi swasthya ke niyam langhan karne se hoti hai. Gharki safai aur swasthya nariyon ke hi hat men hai, is liye nari jati ko chhorkar kuch karne se bhi desh ko kuchh upakar nahin ho sakta hai.

Jiwan ke pahile hafte men bahut bachche wakht pura hone ke awwal janam hone ke sabab se aur kamzori ke sabab se mar jate haen. Samajik aur arthik avastha, daridriya, chhotepanse sadi, jaldi jaldi bachche paida hona, mata ne bahut dinon tak doodh pilana, aswasthiya kar jageh men rahna—yeh sab sabab se mata kamzor hojati hai aur chhote bimar bachche paida hote hain. Aise kamzor bachchon ko bahut hushiarise palna chahiye, lekin ham logon ko itni siksha nahin hai jis se yeh kam achhi tareh se kar saken.

Calcutta, Lahore, Bombay in tamam bare bare shahron men Municipality mata aur bachchon ka jiwna aur swasthya ke liye bahut koshish kar rahi hai. Mataki jajki ke wakht men madad dene ke liye qualified Dai log rakhi hui haen. Daion ko supervise karne ke liye lady doctor log bhi haen. Bachchon ke faide ke liye

Baby Welfare kam bhi shuru hogaya hai. Achhi tareh se yeh kam karne ke waste bahut rupion ki zarurat hai. Gharib, kamzor mata aur unlogon ke bachchon ke liye taza doodh aur kara chahiye. Hindusthan ke nariyon ko apne desh ke bachchon aur mata ki bhalai ke waste ismen madad dena chahiye. Bachchon ki sikhsha ya talim unke janam se shuru hona chahiye. Siksha ka uddeshya hai bachchon ko sat gun ka, bikas karna aur doshko sudharna. Sarir ko takatwar karna buddhi ko barhana aur sat charitra aur dharmik banna.

Sarir ko kaisa takatwar karna ? Yeh bat pahile mata ko malum hona chahiye ke swasthya aur rog men kya bhed hai—nirogi bachchon ka kya lakshan hai. adhikansa bachche janam kal men nirogi paida hote haen. Kshaya rog aur dilke rog se bimar auraten bhi nirogi bachche paida kar sakti hai. Prakriti Devi bachchon ka faida ma ke faide se ziada khiyal karti aur ma ke jike waste befikar aur bachchon ke liye fikar karti hai. Is sabab se wuh bansa raksha karti hai. Nirogi bachche dekhne men bahut durbal nahin hote, ulti nahin karte, ma ka doodh agar ma ko doodh na ho to botol ka doodh achhi tareh se pite haen. Pet nahin phul jata, teen, char dafa maela karte aur nahin rote hain, paikhana naram aur pila hota hai, kabhi hara ya safed nahin hota. Bachchon ka chamra naram aur usmen ek bhi dagh nahin rahta. Zaban saf rahti hai. Nirogi bachche taul me har hafte men barhte jate hain. Do, teen mahine tak (pahila hafta chhorkar) ek hafte men sat ounce barh jate haen. Sirke samne ke ansa me hamesha pasina nahin ata hai.

Bachcha paida hone ke baad chhe ghante men usko ek wakht maka doodh pilana chahiye. Pahele chaobis ghante men sirf do dafa, Doosre chaobis ghante men

CSL

teen dafa din men, ek dafa rat men. Agar bachcha roe to thora sa garam pani chammach se de sakte hain. Teesre din se dinmen, do do ghante men, aur rat men ek dafa doodh pilani chahiye. Bachcha jab kabhi roe usi wakht doodh dene ki zaroorat nahin. Kyon ke kisi dastur ke sath kam karne se bachche ke sangjam ko siksha hoti hai aur nirogi aur khus dil hota hai. Bahut bachchon ko din men sone ki aur rat men rone ki adat hoti hai, yeh adat sirf ek dafa rat men doodh pilane se sudhar jati hai.

Jab jab bachche rote hain tab tab un ko doodh pilane se wey hamesha doodh hi ke liye roya karenge aur mako kuchh aram nahin milega. Lekin pahile se unke is tareh rone ki ziada fiker na karne se unke rone ki adat rafta rafta toot jaigi, aur wey usi wakht se sangjam seekh lenge. Unko doodh hazam karne men hazam ke ras bhi theek wakht se nikalta hai aur wey doodh achhi tareh se hazam kar sakte hain. Hazima durast hone se nirog rahta hai aur sanjam se bhavishyat charitra dridha hota hai. Isliya charitra ki buniyad janam se banana chahiye.

Bachchon ke liye jo jo baten darkar hain wuh yeh hain :—

(1) Tazi saf hawa, (2) Asnan, (3) ankh aur mukh ki hifazat.

(2) Do dafa bachchon ka ankh saf karna chahiye. Mukh ke bhitar bhi naram, patla, saf kapre se ponchhna chahiye.

(3) Sone ke wakht mukh nahin dhakna chahiye.

(4) Bachchon ka kapra halka, dhila hona chahiye. kapra itna tang nahin hona chahiye ke bachhon ko hath pair chalane ki mushkil ho. Hath pair chalane se kuchh kasrat ho jati hai aur yeh unke barhne men faida deti hai.

(5) *Rona.*—Bhuk ke sabab se hi bachche har wakht nahin rote hain, balke kabhi kabhi pias ke sabab se bhi. Is halat men, unko do teen chammach neem garam pani pilane se wey chup hojate hain. Pani pilane ke bad bhi agar wey royen to samjho ke wey bimar hain.

Balya-kal se mata ki cheshta hona chahiye, balak ke jiwan ki buniyad achhi tareh se banana. Engineer log koi makan ya imart banane ke peshtar kya karte haen? Pahile wey makan banane ki jagah ko achhi tareh se dekh lete hain. Phir jis prakar ka makan banana ho uska naksha banta hai, naksha tayar hone ke baad tamir ke liye saman jama hota hai aur yeh taman pura ho jane ke baad imarat ka kam shuru hota hai. Kam jari rahne tak naksha hamesha dekhna parta hai. Buni jad ka kam bahut hushiari se karna hota hai. Agar iska achhi taor se khiyal na kiya jawe to kam bigar jata hai aur thore roz men makan bhi gir jata hai.

Sansar men Prakriti Devi bhi alasya pasand nahin karti. Srinkhala ekagratha, parisram hardam kritakaryata ko paida karti hain. Dr. Montessori ne bahut dinon ke abhigyata se yeh satya abishkar kia ke bachchon ki man bilkul naram mitti ki tareh nahin hai, jis se ham log apne ichha ke muafik un logon ke jiwan gathan kar saken, lekin wey sab koi apne apne bisesh gun aur dosh ki bij rahti hain, mata, pita aur sikshak ke kartav ya un logon ke man keupar achhi tareh se dhyan rakhna aur gun ko barhana aur dosh ko sudharna. Ghar banana shuru karne ke pahile Engineer jaisa jageh ki pariksha kar leta hai, ham logon ka bhi aisa bachchon ke man ki gati dekhna chahiye. Bachchon ke manki gati jistaraf hai siksha bhi usi muafik dena chahiye. Engineer jaisa eent, chuna lakri itiyadi cheezen pahile se jama karke rakh leta hai, mata ki bhi charitra gathan karne ke liye bisuddha riti, niti ko apne adarsha men rakhna chahiye. Niti—jaisa kartav ya palan, satata, satyabaditwa, mitabyayita, udāratā, dānashilatā aur sangjam, Su-niti se prithivi men santi aur Su-shrinkhala paida hoti hain. Dunian men ain aur suniyam jo kam karte hain su-riti zindagi men wuhi kam karta hai. Parameswar ke srishti men hamlog charon taraf kya dekhte hain? chhote chhote hisse ek ke sath ek milkar ek bari cheez hojati hai jisko sabkoi hisse hi uske kamon men madad dete hain. Yeh ek sath men milkar kam karne ke sabab se niyam aur srinkhala paida hota hai. Purane zamane men Hindsuthan ke gyani log yeh bat achhi tareh se samajh gai the. Is karan se Bharathvarsha utni mashur thi. Un logon ne saririk unnati ko bhi nahin chora tha. Larke aur larkiyan tamam, saririk unnati kewaste siksha pate the. Bharatvarsha men us wakht parde ki kaeda nahin thi aur yeh donon (larke aur larkiyan) milkar sab kam karte the. Purani kitabon men ham log dekhte hain ke brahmabadini nariyan gyani muni rishion ke sath brahamanatwa alochana karti thin, jaisa Gargi aur Jagnavalkya muni.

Subhadra aur Arjun ke vivah ke drishtanta men ham log dekhte hain ke balya-vivaha us wakht men nahin hota tha aur nariyan rath chalane, kasrat karne men nipuna thin. Jab Arjun Subhadra ko haran kiya tha tab Durjodhan aur Balaram un logon ko pakarne ke liye bahut sipahi bhej diye the. Arjun ekela rath chalata tha aur larai nahin kar sakta tha yeh samajh kar Subhadra ne ghore ka ras apne hath men lekar rath chalaya tha aur Arjuna sipahi logon ke sath khub larai kartha tha.

Phir Kurukshetra men larai ke wakht jab Judisthir ne Arjun ko ek taraf Narayeni sipahi logon ke sath larai karne ke wasthe bhej diya gaya tha aur jab Dronacharya ne aur sab sipahi logon ko lekar chakra buha rachna karke Pandave sipahiyon ko bahut se dikhdar kia tha aur jab Judishthir ek dam hatas hogaya tha us wakht Arjun aur Subhadra ke chauda baras ko balak Abhimanya ne Judisthir seapne sipahiyon ko leke wuh buha bhed karke Kuru logon ko akraman karne ko hukum manga tha. Judisthir ne jab puchha tha ke tumko kisne is kamki talim kia hai unhon ne katha ke jab mere bap ne ma ko buha bhed karne ka upaya batlaya tha tab hamne wuh bat suna tha lekin nikalne ki bat nahin suna isliye wuh upaya hamko malum nahin hai. Is ghatna se malum parta hai ke nariyan apni mamuli siksha hi sirf nahin pati thin lekin unko aisa siksha diya jata tha ke jiwan ke sab kamon men wey pati ko madad de sakti thin. Mahabharat Grantha ko Birat parba se dikhai deta hai ke purane zamane men larkiyon ko khel, kasrat, nirtya gitadi vishaya men bhi talim di jati thi. Arjun Agyatwas ke wakht men Birat Raja ko larkiyon ko is vishaya men siksha deta tha.

Siksha char prakar ki hona chahiye :—

(1) Saririk.
(2) Manasik.
(3) Naitik.
(4) Adhyatmik. (Adhyatmic).

(1) *Saririk.*—Balakon ka sarir bachpane se mazbut aur nirogi nahin hone se bare hone ke baad wey achhi tareh se apne jiwan ke kartaviya aur desh ke kam kar nahin sakte. Saririk siksha manasik siksha se kuchh kam zaroorat ki bat nahin hai. Balakon ke mitahari mitachari aur parisram-sil hona chahiye. Sarir ko takatwar karne ke liye kusti, kasrat, vyaam aur sab kisam ke khel seekhna chahiye. In logon ko apne sarir ko duniya

ke kam men lagane ke liye Parameshwar ko yantra samajhna chahiye aur is liye sarir ko unnati sadhan se ham log unhi ka abhipraya sadhan karte hain yeh khiyal hona chahiye. Usko aisi siksha pradan karni chahiye ke jismen wuh apne sarir ko Iswar ka pavitra mandir samjhen, ya usko adeshon ko palan karne wala ek upa karan samjhen. Usko yeh samjhaya jai ke sarir-dharma ka sewan karna bhi desh dharam ke sewan karne ka ek anga hai.

(2) *Naitik siksha.*—Balyavastha men niti kuchh swavabjat, kuchh prathagata aur kuchh siksha jata hoti hain. Bachpan men, sat, asat tatha kartaviya, akartaviya ke vichar jis ke ashraya sansar ke vyavahar chalte hain is avastha men (andha) andh-vishwas par swikar kiye jate hain ; kintu ek samaya ata hai jab bare hone par manushya apne vicharon ki mimansa karta hai, wuh janna chahta hai ke satya kya hai, shuya kise kahte hain, kartaviya palan kis prakar karen, jismen ke acharan shuddha bane. Shuddha acharan tab hi banta hai jab is prakar gyanki adhik vriddhi hoti hai.

(3) *Manasik siksha.*—Manasik siksha ke liye—yeh siksha is riti se dijati hai jis men hamara Bharatvarsha vaisa hi hau sake jaisa ke ham use banana chahte hain, arthat aise ek jati ho jai jismen jatiya jiwan ki sab avashyakatayen siddha hon. Abtak hamare yalakon ko manasik siksha to di gai, kintu vigyan tatha vyavahar-shastra inko na sikha-laya gaya. Kisi desh ki unnati ke liye yeh zaroori hai ke us desh ke balak bhinna bhinna byaparon tatha kalaon men kushal hon.

(4) *Adhyatmik shiksha.*—Sharir aur sharir ke dvar arthat indrion dvara ham logon ko bahya padarthon ka parichaya prapta hota hai. Jivatma ka sambandha Paramatma se svayam-siddha hai. Paramatma jo ke

GSL

sab jagat ka adhar hai, o sabka pran hai jiske vashibhut hokar Prakriti apne drishya disha rahi hai yeh atma aur Pramatma ka sambandha hamko antahkaran dvārā pratit hota hai, iske dvārā ham atmik niyamon ko pahachante hain, aur apne jiwan ke uddhar ke liye unki anukul acharan karna ka prajatna karte hain. Hamara andar mahan atma-bal maujud hai kintu ham uska proyog hi nahin karte, hamare atma vipul shaktiyon ka bhandar hai kintu hamne ab tak uski or dhyan hi nahin diya. Pratyek manushya ka yeh dharma hona chahiye ke wuh apne atmik shaktiyon ka poshan kare.

Bharatvarsha men shiksha ke pracharke bahut hi zaroorat hai Balak aur balikaon, donon ko vidya parhani chahiye ; dhanavan tatha nirdhan logon men vidya ka prachar hona chahiye. Ek samaya tha jab Bharatvarsha unnati ke shikhar par charha hua tha. Bharatvarsha apne mahatva ko phir prapta kar sakta hai, yadi uski santan is bat ke liye prajatna karen. Swami viveka-nanda ne satya kaha hai Bharatvarsha jivna nahin hai. Bharatvarsha mara nahin hai, Bharatvarsha sushupti men par gaya tha ab jagriti ke chinha is men dikhai parte hain. Smaran rahe ki jis prakar manushya apne gunon se barpan ko prapta hota hai, usi prakar age chalkar uske avaguna bhi uski unnati ke sahayak hi hote hain, badhak nahin.

Main ne pahile hi kaha ke agyanata serva prakarki durgati ke karan hain. Shiksha hi agyanata ke dur karne ko ek matra upaya hai. England aur Europe ke deshon ke muafik ham logon ke desh men 'compulsory education' zabardasti se siksha dena chahiye. Hindusthan-bashi shiksha ke birodhi nahin hain parantu yeh log itne garib hain ke paisa kharach karke siksha nahin de sakte. Purane zamane jaisa Rajane Rajkosh

CSL

se vidya sikhane ke liye paisa kharch karta tha, abhi bhi aisa hi hona chahiye. Swargiya Mahatma Gokhle ne apne ek lecture men kaha tha ke ". England aur Colonies" men rajasva jo praja logon ko tax se batwara hota hai usko 10—20 per cent. unlogon ko sikhlane ke liye unlogon ke pas hi wapas ata hai, hamlog kyon tax ka thodasa rupia siksha ke liye leke bahut hua samjhen ? Susiksha praja logon ko raj-bhakta banati hai. Susiksha hi kisi quam ko unnati ka pradhan upaya Siksha ke liye rupeon ke kharach se nuksan nahin hota lekin is se Raja ko takatwar banata hai.

1813 sal ke Charter Act se Bara Lat Saheb ko ek lakh rupia baras men Hindustan ke sahitya aur Bigiyan siksha ke liye kharach karne mila. 1835 sal ke peshtar ye rupia sirf sahitya shikshewalla larkon ko scholarship ke wasthe kharch hota tha. 1835 sal men jab Macaulay Saheb Committee of Public Instruction ke Chairman hokar Hindusthan men aye the tab ek bari sabha men Angrezi parhna ya sirf Arabi Farsi aur Sanskrit parhna is bishaya ne bahut alochana hua tha. Hindusthan ke adhikansa pandit angrezi siksha ke virodhi the lekin Macaulay Saheb aur Raja Ram Mohan Roy aur unke do char chele angrezi siksha ke svapaksh men the. Macaulay Saheb ne angrezi shiksha ki chalan karke hamlogon ko bahut upkarkiya. Angrezi shiksha ki prachalan nahin hone se Hindusthan itna jaldi se hoshiar nahin hota tha.

Uthan aur patan unnati aur abanati prakriti ki niyam hain. Rome ek zamane men barha tha, Greece bhi aisa hi tha, hamara Bharatvarsha char panch hazar baras ke peshtar sab se bara tha. Bharat ko patan shuru hua jab Brahamanon ne swartha sidhi karne ke liye buddhival apna dakhal men rakhne ke liye nariyon

CSL

aur non-Brahmin jatiyo se siksha aur gyan-labh ka adhikar chhin liya tha.

Ab hi phir hamlogon ne purbaka adhikar paya, hamlogon ka kartaviya veh hai ke hamlog sayatne se apne adhikar ko sat vyavahar karen. Swargya Mahatma Gokhle kahta tha. Ham logon ke karma ka uddeshya hai jirna sanskar, pavitrata sthapan, manasik britti ki parichalan se uski unnati sadhan : aur naitik adhyatmic sakti ki sat vyavahar se apne kartaviya ka adarsha uchchatark arke atmaki purnatā labh karna. Itna nahin karne se hamlog kabhi purba purushon ki tareh mahat nahin ho sakte. Wuh log devasrita the. Un logon par mahat kamka bhar diya gaya tha.

Jab koi aisa uddesiya se anupranita hokar karmanusthan karte hain us wakt kartaviya jis taraf lejaye aur jis upaya se karya sidhi karwawe wuh usmen udasin hokar kartaviya ke pichhe chalta hai.

Jab ke Hindusthan ki nariyan agynandhakar se nirmukta hokar hridaya ashapurna karke kartaviya karma men sthir viswas rakh ke naya gyan ka purna bikash, buddhi ko kusansker-rupi-megh-jal se nirmukta sab saktion ka sat vyavahar viswa-janin prem se hridaya ke bharpur karke Bharat mata ki seva men jiwan utsarga karenge, usi wakht Bharatvarsha jagat ke qaum men apne yogya sthan paneka adhikarini hoga. Tab Bharatvarsha sarba shrestha hokar apne kismat ka parichalak hoga. Aisi santan paribeshtita Bharatvarsha hamlogon ki ipsita bhumi hai. Yehi purba pratisruta sthan. Jo log kalpana se is drishiya ko dekhte hain wuh sukhi hain, jo log isi uddesheya se rasta saf karne aur Janma-Bhumi ke liye kuchh kam karne ka adhikar pate hain wuh log us se bhi ziada sukhi hain. In se bhi sukhi wuh honge

GSL

jo vabishiyat ki parishodhit, mahima-mandita Hindusthan ko apne nazar se dekhne ke liye jiyenge aur pavitra Bharat Bhumi men pradakshin karenge. Durviksha, rog, shoka, atyachar yeh sab atitki kahinisi malum denge, aur prachin kal men jisko ham log ab alaukik samajhte hain usi kalki tareh devata log Bhutal men utar ke manave ke sath milita honge.

Mrs. Annie Besant ne ek jageh me kaha hai:—Hindusthan nariyon ko, mataon ko sabse uncha sthan deta hai, aur sab purushon ka prem mata par sabse gavir hai. Isi sabab se Bharat-santan Bharatvarsha ko pitri bhumi nahin kahte par matri bhum kahte hain. Jab Bharat-mata ka griha prastut hoga tab mata apne sthan men avegi abhi wuh adarsha men hai magar vabishiyat men wuh prakrita hoga.

Hindusthan-basion ko charitra gathan men tatpar hona chahiye Nariyon ko aisi tareh se siksha dena chahiya jisne Bharat nari vabishyat Hindusthan ke gathan men sahayata kar saken. Bachchon se shuru karke mard aur aurat tak sushiksha dena chahiye kyonke yeh log vabishyat Hindusthan ko gathan karenge. Ham logor par vabishyat vansa ke shiksha ka bhar nyasta hai. Hamlog jo bij abhi bapan karenge wuh log wuh kartan aur sangraha karenge. Aj jo asha aur adarsha men hain wuh log uske karya men parinata karenge.

Swargiya Mr. Gokhale ne jo bat kahgaya us bat ko khiyal men rakhna chahiye "Vaibishyat men Bharat-santan, Bharat mata ki seva kritakaryata se karenge. Ham logon ki kismat men akritakaryata rahne se bhi mataki kam hai isi bat men hi paritripti hai."

Is bātki tareh mahat vakya bahut hi kam dikha deti hai. Kyon ke jo andhere men rahke bhi pratas-kalke

CSL

ujale par visvas karte hain wuh log ujjal suroyālok men khade hue logon se adhikatar visyasi hain.

Aur Bharat Nariyan ?

Jab wuh log sushiksha pavenge, apni jagah jab wey thik samajh lenge apna desh, aur apne desh ke atita avastha, aur deshbashi ka abhab, aur abhab ka pariman jab samjhenge: Jab unlogon ka matri-hridaya jagrat hoga sirf parivar, gram, aur sbagriha ke liye hi nahin, magar matri-bhumi aur swadesh vasikon ke liye jab suptotthita dritaya-ko kamon me buddhi brithi ko naya path ka avishkar karne lagaenge tab-tab hi nari jati ki vabishyat purna saundaryya se sobhit hoga. Tab shiksha charit arthata labh karenge aur jatya adarnha ko purna prakash hoga.

Yeh bat ham log thik taur se kah sakte hain ke jab tak bharat nariyan mahat, swadhin aur purna jiwan nahin pavengin, tab tak Hindusthan ko purba mahima nahin phiregi, kyon ke Bharatvarsha ko unnati, Bharat ko mukti Hindusthan ki nariyon ke haton men hai Patni chahey pati ki unnati ya abanati karti hai. Mata santan ke prakrita manushyatva deti hai ya usko kho deti hai. Nariyon ki purushon ko unnati ya abanati karne ki sakti asima hai. Purush aur nari donon ek sath hoker desh ko unnati karne ke liye agrasar nahin hone se iski unnati ki asha nahin hai.

Main ab Maternity and Child Welfare Exhibition ke vishaya ko ullekh karti hoon. Bachchon ki bhisan mritya sankhya kam karne ke liye yeh bahut achha upaya hai. Mananya Lady Chelsmford aur pradhan udjogiyou ne ismen bahut taklif uthai. Un logon ne sahridayata aur manaba par sahanubhuti se anupranita hokar itna kiya. Manushya jati par prem swadesh

CSL

prem se bhi mahat hai, kyon ke prathama ke liye pratyek manab hridaya ki zaroorat hai. Ek ek manushya baton ke tab manab jati bante.

Macaulay ne 1835 sal men yeh kaha tha ke :—"Ham logon ke Bharat samrajya ki kismat ghor andhakar se dhaki hui hai. Yeh khub ho sakta hai ke Angrezon ke shasan men Bharat bashion ki manasik shakti itni khulegi ke jis niyam se hamlog Hindusthan shasan kar rahe hain wuh in logon ke liye yatheshta nahin hoga : sushasan ke gun men yeh log sushikshit aur is se achha shasan ko yogya hokar, praja tantriya shasan pranali chahenge. Aisa din ayega ya nahin, kah nahin sakte. Lekin ham us dinke ane men badha nahin denge aur deri bhi nahin karaenge! Wuh din anese wuh Angrez ko gaurab ka din hoga. Koi ek mahat jati ko adhas patan, kusanskar aur dasatva ki atal garbha men dube dekh kar, un logon ke aisi siksha aur aisi tareh se shasan kia ke unhon ne swadhin deshke prajaon ki tareh adhikar paneka abhilashin aur yogya hua, aisa vabishyat Aangrez ke gaurab ko upadhi hoga."

Ya vabishyat bani puri hone par agai. Pashchim jab apse age barhkar aisa kahti hai :—

> "Main Hindusthan ke bachchon ko is tarike par dekhti hoon ke wuh desh ke bārah bhari aur pujya sampatti hain. Aj jo bachche hain kal nayak ho jayengo. Unke kalyanke liye kitni bhi koshish kyon na ho leken ziyada nahin kaha ja sakti hai nato unke briddhi ke liye paisa kharch karne ke kohi aisa umda tarika hai, jo unke briddhi ke madad men kharch kiya ho jis men wey mazboot aur nirogi mard aur aurat howen."

KB

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
8, HASTINGS STREET

1

showing the methods of a dirty, untrained daï and those of a trained dai.

The contrast was shown by means of the implements used by an untrained dai for the patient and baby, such as plugs of dirty wool, oil, old rags, old knives, pieces of tin, dirty strings, etc. The specimens shown were taken from actual cases.

For the trained dai was shown a model outfit, bowls, scissors, soap, clean thread, etc.

There were also pictures and culture tubes showing how germs enter the body.

The next part consisted of four lying-in rooms, two in very poor houses and two in good class houses.

In each case one room was arranged as it is usually found, and the other with the defects remedied and made as good as possible. Care was taken in the case of the poor man's house to include nothing but such things as were within his means to purchase.

The better class rooms were carried out in the same way, but in the model room economy was not studied.

Clean or dirty dais were in attendance in each room.

The next section dealt with the feeding of the infant for the first three days after birth on such decoctions as Guttae, Sherbert, Ghur, mixture of herbs, opium, etc.

Vessels used to feed infants were also shown including a shell from Madras. These were contrasted with the correct methods.

Pamphlets on Maternity in English, Urdu and Hindi were distributed to visitors.

The work of trained midwives was well illustrated by an exhibit shewing the Calcutta Corporation scheme consisting of photographs illustrating the work, maps,